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ABSTRACT

Prompted by a California State University trustee resolution in 1985 to offer an independent doctoral degree in education, this report aims to determine whether additional doctoral programs in educational administration are needed in California. It examines the history and professional uses of doctorates in education, and surveys perceptions of the degree (both Ed.D. and Ph.D.) and its importance in school and community college administration. Alternative forms of training and continuing education available to administrators are examined, and national trends are cited regarding number of degrees awarded, sex and ethnicity of degree recipients, career patterns, and length of time between bachelor's and doctoral degrees. Other issues relating to supply and demand in California are discussed, including the adequacy of the current supply of doctorates. Based on 13 findings and 8 conclusions drawn from the evidence, the Commission offers two recommendations: (1) no new doctoral programs in educational administration should be established in any institution not now offering the degree, and (2) an intersegmental committee should investigate the needs and propose possible structures, components, and modes of delivery for doctoral programs designed specifically for present and future administrators in California's community colleges. An appendix describes the methods used by the Commission to survey graduate school deans, doctoral students, and school and community college administrators. (LB)

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Summary

This report stems from a resolution adopted by the Trustees of the California State University in November 1985, proposing to extend the mission of the State University to include awarding an independent doctoral degree in education.

In the report, the Commission examines the history and current status of doctoral degrees and doctoral degree programs in education in relation to the potential supply of, and demand for, holders of these degrees in California. Rather than dealing with the specific issue of the possible expansion of the State University's mission, the Commission focuses on the broader question of whether or not additional doctoral programs in educational administration are needed in California.

The report is divided into seven sections: The first explains its purpose, method, and scope; the second traces the history of the education doctorate in American higher education; the third explains differences between the Ed.D. and the Ph.D. in education; the fourth reports national trends regarding these degrees; the fifth discusses the supply of, and demand for, the degrees in California; the sixth considers four major issues of supply and demand; and the seventh -- on pages 31-34 -- contains the Commission's findings, conclusions, and two recommendations:

1. The Commission recommends that, at the present time, no new doctoral programs in educational administration be established in any institution not now offering the degree. Recognizing that some efforts are currently underway to plan new programs -- including joint doctoral programs -- which respond to issues of access and equity, the Commission recommends that any such programs be developed to reflect concerns for such issues and concern for the quality, content, and effectiveness of existing programs.

2. The Commission recommends that an intersegmental committee investigate the needs and propose possible structures, components, and modes of delivery for doctoral programs designed specifically for present and future administrators in California's Community Colleges.

The Commission adopted this report at its March 16, 1987, meeting on the advice of its Policy Evaluation Committee. Additional copies of the report may be obtained from the Publications Office of the Commission. Further information about the report may be obtained from staff members Norman Charles at (916) 322-8020 or Joan S. Sallee at (916) 322-8011.

THE DOCTORATE IN EDUCATION

Issues of Supply and Demand in California

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
Third Floor • 1020 Twelfth Street • Sacramento, California 95814

COMMISSION REPORT 87-11
PUBLISHED MARCH 1987

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1 *Purpose, Method, and Scope of the Study*

Purpose of the study

This study was prompted by a resolution adopted by the Board of Trustees of the California State University in November 1985, proposing to extend the mission of the State University to include awarding an independent doctoral degree in education. Asserting the "verifiable need . . . for additional doctoral programs in the field of education at public California institutions has been demonstrated," the Board requested "representatives of California State University to work with appropriate State authorities, in connection with Master Plan revision, to offer the independent doctoral degree in education."

The resolution challenges one of the basic provisions of the Master Plan which assigns responsibility for doctoral-level programs (with the exception of joint doctoral programs) to the University of California.

The Commission's interest in this resolution stems from a mandate to involve itself in matters affecting the differentiation of functions among the three public segments, as well as from its responsibility to assess the need for new degree programs.

This report responds primarily to the second of these responsibilities. Its purpose is to examine the history and current status of doctoral degrees in education -- the Doctor of Philosophy (Ph.D.) in Education degree and the Doctor of Education (Ed.D.) degree -- in relation to doctoral-level institutions in California and to the potential supply of, and demand for, holders of these degrees in the employment market.

This report does not deal with the important question of segmental mission. Instead, its purpose is to arrive at a judgment, based on a thorough consideration of available evidence, on whether additional doctoral programs in educational administration are needed in California. This is a prior question to be resolved before a decision on the State University's proposal to establish such a program can be reached.

Method

Even if it were possible to assemble all pertinent information about future supply and demand in education (the number of qualified candidates versus the the number of suitable openings) -- and consequently about the need for additional educational programs -- firm conclusions would be difficult, as in any occupational field. Reliable forecasts would still be doubtful because a chance occurrence or an unforeseen development can invalidate the most painstakingly derived forecast.

Nevertheless, the Commission and its staff have gathered information by a variety of techniques from a range of sources:

- It reviewed written accounts of the history of the degree, books and articles on the theory and practice of educational administration, commentary on strengths and weaknesses of the current system of training school administrators, and similar materials in print.
- It collected statistical information on enrollments, degrees awarded, and characteristics of degree recipients, both nationally and in California.
- It interviewed individuals responsible for activities related in some way to the training and selection of school administrators -- among others, the Executive Director of the California School Boards Association, the Assistant Superintendent in the Department of Education responsible for the California School Leadership Academy, and staff of the Commission on Teacher Credentialing.
- It sent the survey forms reduced in the Appendix to (1) deans of graduate schools of education offering doctoral programs in educational administration, (2) Community College administrators, (3) a sample of public school administrators; and (4) a sample of students currently enrolled in doctoral programs in education in California.
- Finally, it reviewed catalogs describing these doctoral programs in California and read an impres-

sive number of letters commenting on the need (or lack of need) for additional programs from interested parties around the State.

Scope and organization of the report

This report looks at the history and professional uses of doctorates in education; surveys perceptions of the degree and its importance in school and Community College administration; attempts to assess interest in pursuing the degree and the capacity of existing programs to accommodate this interest; examines alternative forms of training and continuing education available to administrators and considers a number of other aspects of the supply and demand question. Since the State University has indicated its intention of proposing a doctorate in educational administration, this study concentrates on this area of specialization among the many now offered under the doctorate of education rubric.

Acknowledgment

The advisory body for this study was the Intersegmental Program Review Committee -- a standing committee of the Commission, consisting of these representatives from the three public segments of higher education and the Association of Independent California Colleges and Universities: Calvin C. Moore, Associate Vice President - Academic Affairs, University of California; William J. Moore, President, Association of Independent California Colleges and Universities; Anthony J. Moye, Associate Vice-Chancellor, The California State University; and Laura F. Willson, Vice Chancellor for Academic Affairs, Chancellery, California Community Colleges. The Committee met three times to review and comment on this report. Individual members also reviewed and commented on drafts of the questionnaires and offered other suggestions and assistance valuable to the conduct of the study.

The Commission is grateful, as always, to them for their advice and counsel.

A project of this magnitude requires the assistance of many persons beyond its advisory committee. The Commission wishes to thank especially all the deans, school and Community College administrators, and doctoral students who participated by responding to its survey. Moreover, while it is not possible to acknowlege individually all others who contributed to the development of this report, these individuals were particularly helpful

Herbert Salinger, Executive Director, California School Boards Association;

Sidney Inglis, Consultant, Commission on Teacher Credentialing;

Sally Mentor, Assistant Superintendent, California Department of Education;

Gary Olson, Superintendent, Vista Unified School District;

Mary Emery, Staff Member, Association of California School Administrators;

Michelle Adams, senior student at University of California, Davis, and student assistant at the Commission.

Despite all of the ways these persons assisted in the study, responsibility for the content and conclusions of this report rests with the Commission and its staff.

2 *History and Evolution of the Degree*

THE doctorate in education emerged as an autonomous degree program during the early years of the twentieth century. While individual professorships in education or "pedagogy" had been established in a few universities before 1900 -- the University of Iowa in 1873, the University of Michigan in 1879, and Harvard in 1891 -- no separate departments of education existed. And while dissertations dealing with topics in educational history, theory, and even practice had been written before 1900, degrees were issued by departments of philosophy, history, or psychology.

The merger of Teachers College with Columbia University in 1898 seemed to set in motion the establishment of departments and schools of education in universities throughout the country. By the early 1920s, some 25 institutions were offering doctoral programs in education, and by the early '30s the number had almost doubled (National Research Council, 1963, pp. 20-26).

A variety of influences converged to promote and shape the development of education as a professional field of study. Among them were the rise of professionalism, a growing faith in science and the scientific method, and developments in the public school system, including in particular changes in the role of the school superintendent.

The rise of professionalism

Separate schools and departments of education developed concurrently with a move toward professionalization in all lines of work. By forming national organizations, setting educational requirements, and requiring credentials and licensure, many occupational groups sought to elevate and give identity to their calling. Professionalism required a narrowing of occupational focus, a more precise definition of competencies, and a clearer demarcation between areas of expertise. Within the academic world, this tendency led not only to the formation of new schools and departments but also to the rapid development of specializations within each department. In education, for example, educational administration, educational psychology, and curriculum and instruction had achieved "professional" status by the 1920s, with several other areas of specialization soon to follow.

Defining a university college of education in 1922, M. E. Haggerty insisted that, above all, it had to be a professional school (p. 91):

> Its aim is not to provide a liberal education but to train workers. The knowledge that it strives to impart is not general and comprehensive but special and limited to specific needs. It aims to equip men and women who have definite vocational motives with the specialized skills they will need in their vocations .... In these respects the college of education has its analogies in the schools of medicine, law and engineering rather than in the college of liberal arts or in academic departments.

This concept, entirely in keeping with trends in other emerging fields such as social work and business administration, led to a gradual walling off of schools of education from the arts and science faculty in most universities. It was not long before all aspects of the subject -- educational history, philosophy, psychology, sociology, statistics, and, of course, administration -- were being taught by faculty attached to schools or departments of education and appointed by them. This practice discouraged interaction with, and peer review by, faculty in other academic disciplines -- the very disciplines from which education as a professional field was drawing many of its methodological and epistemological assumptions. The narrow focus required by professionalism had its price.

Faith in science and the scientific method

Professionalization in the academic community came to be identified with the adoption of the meth ods and assumptions of the natural sciences. By the

end of the nineteenth century, faith in science and the scientific method was sweeping American campuses and "rhetorical allegiance to science by professors in most of the disciplines [reached] giddy heights" (Veysey, 1965, p. 173). This climate fostered the separate development of all the various "social" science disciplines including education, which from its beginnings borrowed heavily from the evolving concepts and techniques of sociology. By the 1920s, it was common for education faculty to speak confidently of the "science of education" (Judd, 1931).

Science in the early schools of education was essentially applied social science -- the systematic collection of data for the purpose of shaping policy and solving problems (Tyack and Hansot, 1982, p. 120). The "scientific method" in educational research was, and continues to be, applied primarily to practical administrative and pedagogical concerns. The philosophy and goals of education do not lend themselves to "scientific" inquiry, except perhaps in surveys of opinion. Doctoral dissertations in the history and philosophy of education, therefore, have been much less common than those dealing with specific aspects of school administration.

Academic faith in the efficacy of the scientific method gained support from another quarter -- the business and industrial community. Here, an already strong faith in "modern business methods" was formidably reinforced in 1910 by the appearance of Frederick Taylor's principles of scientific management. Efficiency established itself as the measure of effective administration not only of commercial activities but also of public enterprises such as the schools; "cost effectiveness" became and has remained a cardinal principle of school administration.

Changes in public school administration

Given the goal of the first professional schools of education to "train workers," it followed that the curriculum would be strongly influenced by conditions in the public school system. By the turn of the century, the administration of public schools, especially in urban settings, was becoming too complex and demanding to be entrusted to untrained administrators. Most large cities had established the position of superintendent of schools before 1880. San Francisco appointed its first superintendent in 1852 as did Los Angeles in 1854, when it had a population of only 1,610 and a school enrollment of 126 (Griffith, 1966, p. 10).

The formal duties of early superintendents were not rigidly defined beyond those of examining and certifying teachers, disbursing school money, and visiting and reporting on the schools (Tyack and Hansot, p. 19). Most of the financial administration was conducted by school board committees (Griffith, pp. 12-13). Superintendents were thus free to serve as evangelists for the public school system. The rapid spread of public schooling during the last half of the nineteenth century and its remarkable uniformity in all parts of the country owes much to these first superintendents -- similar in background, interests, and ideology -- who mobilized grass-roots support for locally sponsored public education. In addition to making the case for formal education, these men were expected to provide intellectual leadership for the entire community. The model was that of "scholarly education leader" (Callahan, 1964, p. 4).

As early as 1896, however, a conflict in roles was already apparent. In that year, Cleveland Superintendent B. A. Hinsdale posed a question that has come up repeatedly since then: "Should the superintendent be more of a leader of his teachers and of the community in . . . educational matters, or should he be more of a businessman and administrator? (Callahan, p. 7.)

Within a few years, the model for the school superintendent shifted dramatically to the *second* of these roles. Shortly after the turn of the century, according to Tyack and Hansot, "leadership in American public education had gravitated from the part-time educational evangelists who had created the common school system to a new breed of professional managers who . . . were reshaping the school system according to canons of business efficiency and scientific expertise" (p. 106).

Ties between practicing school administrators and the new university departments of education remained close. Many charter members of departmental faculty was drawn from the ranks of successful school superintendents, and a small group of these educators in key positions -- George Strayer at Columbia, Ellwood Cubberly at Stanford, and Frank Spaulding at Yale, among others -- exerted a determining influence over the training and placement of future leaders, the agendas of national associations,

public policies toward the school system through city and state surveys that they conducted, and the form and content of graduate programs in educational administration. These men, in fact, created the specialty of educational administration in the same way that Thorndike, Terman, and Judd were responsible for the field of educational psychology (Tyack and Hansot, p. 118). The goal in both cases was to professionalize the fields.

George Strayer, reflecting in 1930 on the progress in school administration during the previous 25 years, attributed it primarily to two causes: "the application of the scientific method to the problems of administration and the professional training of school executives" (Tyack and Hansot, p. 152). Strayer believed that the purpose of professional training was not to produce educational philosophers or scholars in the traditional sense, but to provide administrators with the specific skills needed to manage the schools. This focus on the mechanics of administration was reflected in Strayer's concept of the dissertation: "There is no detail of the work of the administrator that may not properly become the subject of intensive investigation by those who are candidates for the doctor's degree in the professional school" (Callahan, p. 14).

Strayer's views were important among other reasons, because one-fourth of the 21,000 doctorates in education awarded in the United States between 1920 and 1960 were issued by Teacher's College (National Research Council, 1963, pp. 20-26). The approach to graduate research of Strayer and others like him helps explain why differences between the Ph.D. in Education and the Ed.D were difficult to discern, as well as why efforts to differentiate between the two degrees have continued to the present day.

3 *Ed.D. and Ph.D.*

BY 1920, the Association of American Universities -- a small group of institutions with strong graduate programs -- had succeeded in establishing standards for the Ph.D. degree that were rapidly accepted by all American universities aspiring to respectability. These standards, including not only a prescribed period of advanced study but also the requirement of a dissertation based on original research, were drawn largely from concepts of scholarship developed within the traditional arts and sciences.

At the same time, social developments after World War I pointed to the need for highly educated workers in a growing number of "applied" fields -- agriculture, public administration, library science, social work, home economics, and, of course, education. Lacking a research tradition and a scholarly literature, these emerging fields faced the challenge of being accepted as candidates for offering advanced degrees by graduate schools of arts and sciences often intent on upholding a more traditional view of scholarship and higher learning.

Origins and growth of the Ed.D.

In 1920, a solution to this conflict was arrived at by the newly formed Harvard Graduate School of Education when it announced its intention to award the Doctor of Education degree (Morison, 1930, p. 528). With this action, the School of Education succeeded not only in avoiding a confrontation with the orthodox elements of Harvard's Faculty of Arts and Sciences, but also in proclaiming the independent professional status of the field of education. Other institutions soon followed suit, and by 1940, 24 universities were conferring the Ed.D. (Hollis, 1945, p. 97). Many of these institutions, including Columbia University and the University of California, also awarded the Ph.D. in education, which remained the far more prevalent degree through 1950. But the Ed.D. gained ground steadily as more and more institutions awarded it -- 67 by 1960, 97 by 1970, and 128 by 1982 -- 86 of which also offered the Ph.D. in Education. An additional 31 institutions awarded only the Ph.D. Between 1978 and 1982, roughly equal numbers of Ed.D. degrees and Ph.D. in Education degrees were awarded by institutions offering both degrees (Andersen, 1983, p. 57).

Differences between the Ed.D. and the Ph.D.

Contrary to what might be expected, the more widespread Ed.D. programs became, the more difficult it became to differentiate between the two degrees in regard to admission, or graduation requirements and employment patterns of graduates. The Ed.D. was commonly assumed to be the applied, practitioner degree, while the Ph.D. is the more scholarly and research oriented; but periodic surveys from the 1930s to the present have failed to document significant differences between the two. For instance, in 1983, a survey of 167 institutions offering either or both degrees (1983), found no appreciable distinctions between the degrees in admissions policies, unit requirements, time in residency, credit for work experience, time allowed for completion, required research tools, or research competencies (Andersen, 1983). The major differences were that more Ph.D. programs retained the language requirement -- 37 percent compared to 2.5 percent of Ed.D. programs -- and more Ed.D. programs accepted study of a "practical problem" instead of a basic research study for the dissertation.

Another study by Dill and Morrison in 1985 concluded that even in research requirements and the topics of dissertations, distinctions between the two degrees are not pronounced. Focusing primarily on programs in higher education, they found, "typical Ed.D. requirements do not depart from the research content of the Ph.D. Rather they simply offer less of it . . ." (p. 179).

What is true nationally has been true in California. Describing graduate programs in education at the University of California in 1951, Dean Emeritus Frank Freeman wrote (Henry, p. 139):

> Two doctor's degrees are offered, the Ph.D. and the Ed.D. The latter was instituted and is still announced as a professional degree in contrast with the Ph.D. In actuality, however, the two degrees do not differ radically in requirements, program of work, or procedure . . . . As they are presently administered, either degree may be taken in any field of study and in preparation for any kind of professional work.

One reason for blurred distinctions in the research requirements for the two degrees is the fuzzy line between basic and applied research in any discipline but especially in education which, as noted earlier, has borrowed research methodologies from other disciplines and "applied" them to particular situations in the educational process. Another ambivalence in doctoral programs in educational administration concerns the relative emphasis to be placed on theory or practice in the program's content. From the beginning, both Ph.D. and Ed.D. programs have alternated between one or another of these approaches. During the 1960s, a "theory movement" swept the field sparked by a rediscovery of the concept that as an applied social science, educational administration can be investigated empirically using the modes of inquiry of the social sciences. The "movement" lost momentum in the early '70s when it became apparent that no unique and coherent "science" or "discipline" of educational administration had emerged and that graduates of the programs were not solving pressing problems in American education (Farguhar, 1977, pp. 335-338).

Along with recurrent efforts to clarify the nature and purpose of each degree have come proposals either to abolish one or the other or to sharpen the differences between them. In 1946, Ernest V. Hollis argued for providing flexibility in Ph.D. requirements and using it as the sole doctor's degree in the field (p. 258) -- a view that obviously did not prevail. And in 1985 Dill and Morrison called for drawing more heavily on the data handling techniques of scientific management for the Ed.D. in order to clarify distinctions between the degrees, especially in higher education (p. 183).

In sum, despite a lingering sentiment in some academic circles that the Ph.D. is the more prestigious degree, the Ed.D. seems to be firmly established, gives no indication of declining in popularity, and differs only slightly in requirements from the Ph. D.

4 National Trends

Number of degrees awarded

Once established, the doctorate in education -- both Ed.D. and Ph.D. -- quickly developed into one of the most frequently awarded doctoral degrees. During the decade of the 1920s, 48 institutions granted 1,146 Ed.D.s and Ph.D.s in education, second only to the 1,924 doctorates awarded in chemistry during the same period (National Research Council, 1963, pp. 10-11). By 1951, the number of educational doctorates surpassed those in chemistry and since then have far outnumbered doctorates in any other discipline.

Display 1 below shows the number of doctorates awarded in education and other broad disciplinary groupings since 1960. Education doctorates amounted to 16 percent of all doctoral degrees awarded in 1960 and increased steadily during the next 20 years until they reached a high in 1980 of over 24 percent. Since then however, the number of educational doctorates has declined, as has the number of doctorates in the humanities, in contrast to increases in the other five fields. The 6,780 doctorates in education awarded in 1984 -- the lowest number since the early 1970s -- represented an 11 percent drop in five years and constituted only 21.7 percent of the total.

DISPLAY 1 Number of Doctorates Awarded Nationally by Broad Field of Study, 1960 to 1984

Year of Doctorate	Total	Physical Sciences*	Engineering	Life Sciences	Social Sciences	Humanities	Education	Professional and Other
1960	9,733	2,152	794	1,729	1,668	1,660	1,549	241
1961	10,413	2,325	940	1,783	1,778	1,624	1,679	284
1962	11,500	2,485	1,216	1,975	1,890	1,725	1,893	316
1963	12,728	2,910	1,357	2,083	2,027	1,842	2,137	372
1964	14,325	3,115	1,664	2,361	2,169	2,351	2,407	
1965	16,340	3,550	2,074	2,684	2,327	2,530	2,736	439
1966	17,949	3,828	2,301	2,885	2,619	2,711	3,040	565
1967	20,403	4,333	2,604	3,143	3,102	3,087	3,481	653
1968	22,936	4,652	2,855	3,707	3,495	3,467	4,029	731
1969	25,743	5,005	3,265	4,204	3,984	3,788	4,659	838
1970	29,498	5,628	3,434	4,693	4,566	4,278	5,857	1,042
1971	31,867	5,739	3,498	5,268	5,189	4,648	6,435	1,090
1972	33,043	5,538	3,503	5,083	5,470	5,055	7,085	1,309
1973	33,755	5,311	3,364	5,167	5,758	5,414	7,238	1,503
1974	33,047	4,976	3,147	4,962	5,884	5,170	7,241	1,667
1975	32,951	4,857	3,002	5,026	6,066	5,046	7,359	1,595
1976	32,946	4,509	2,834	5,026	6,214	4,881	7,725	1,757
1977	31,717	4,379	2,643	4,920	6,073	4,562	7,455	1,685
1978	30,873	4,193	2,423	5,038	6,039	4,231	7,194	1,755
1979	31,237	4,299	2,490	5,223	5,961	4,139	7,385	1,740
1980	31,015	4,111	2,479	5,460	5,855	3,868	7,586	1,656
1981	31,345	4,170	2,528	5,607	6,142	3,748	7,497	1,653
1982	31,074	4,284	2,646	5,709	5,836	3,559	7,232	1,808
1983	31,190	4,424	2,780	5,540	6,055	3,494	7,147	1,750
1984	31,253	4,453	2,915	5,745	5,895	3,528	6,780	1,937

* Includes Mathematics and Computer Sciences.

Source. 1960-1983: National Research Council, 1983, p. 5.; 1984: National Research Council, 1984, pp. 34-35.

Number of degrees within specialized fields of education

As noted on page 3 above, no sooner had education achieved separate identity as a field of professional study than it began to develop areas of specialization within its graduate programs. To its early specializations in educational administration and educational psychology, it soon added others in measurement, social foundations, and curriculum and instruction. By the 1950s and '60s, as many as 15 different subfields were identifiable as standard specializations within doctoral programs in education, not including specializations in some 20 teaching fields.

For at least the past 20 years, the specialty of educational administration and supervision has attracted more students than any other subfield, averaging almost twice as many degree recipients as the next most popular field, curriculum and instruction. Despite the overall decline in the number of doctorates in education recently, degrees in these two specialties have maintained a consistent level for the past decade, as Display 2 below shows. The most notable declines have occurred in educational psychology, social foundations, student counseling/personnel services and secondary education.

Sex of degree recipients

In 1983, for the first time in any major field, the number of women receiving doctorates in education exceeded the number of men. This landmark was reached not only because of the steady increase in the number of women completing doctorates -- a trend evident in most fields of study -- but because of an equally conspicuous decline in the number of men earning education doctorates. The number of men dropped 36 percent since 1976, contrasted to an 18 percent increase in the number of women (Display 3).

Education has always been a popular field among women pursuing advanced degrees. Since 1925, more women have earned doctorates in education each year than in any other field of study (National

DISPLAY 2 Number of Education Doctorates Awarded Nationally by Subfield, 1974 to 1984

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Education	7,241	7,359	7,725	7,455	7,194	7,385	7,586	7,497	7,232	7,147	6,780
Curriculum and Instruction	776	824	786	759	808	874	838	815	809	856	864
Educational Administration and Supervision	1,377	1,508	1,683	1,516	1,455	1,500	1,536	1,659	1,470	1,619	1,554
Educational Media	83	90	92	82	92	92	75	77	76	88	82
Educational Measures and Statistics	97	117	104	118	97	104	89	90	94	..	..
Educational Statistics and Research	..	..	..	..	..	..	..	..	..	86	105
Educational Testing, Evaluation and Measurement	..	..	..	..	..	..	..	..	..	51	56
Educational Psychology	472	458	488	498	445	415	476	445	447	274	229
School Psychology	..	..	..	..	..	..	..	..	..	88	110
Social Foundations	271	241	246	230	237	242	214	209	214	142	151
Special Education	282	284	316	324	311	316	346	312	347	349	313
Student Counseling and Personnel Services	639	737	695	662	560	607	594	549	539	502	390
Higher Education	587	623	652	715	615	683	685	671	653	632	654
Pre-Elementary Education	.	..	..	..	..	..	74	90	77	63	54
Elementary Education	288	233	218	187	217	169	162	180	149	111	97
Secondary Education	208	190	179	142	134	154	168	136	104	87	62
Adult and Continuing Education	162	147	191	173	200	169	235	233	257	221	218
Teaching Fields*	1,479	1,417	1,418	1,439	1,352	1,411	1,471	1,437	1,332	1,328	1,170
Education, General	379	294	416	396	425	410	427	405	418	347	311
Education, Other	141	196	241	214	246	239	196	189	246	302	360
Other and Unspecified	86	20	47	24	14	23	22	35	24	22	20

* National Research Council totals present figures for programs in 18 individual fields, such as art, business, English, science, and industrial arts.

Source: 1974-1983: National Research Council, 1983, p. 49. 1984: National Research Council, 1984, p. 29.

Research Council, 1963, p. 51) -- one of every three in the 1980s.

Until recently, however, relatively few women specialized in educational administration. Of the 5,860 doctorates in educational administration and supervision awarded in the United States between 1970 and 1975, for example, only 656 (11 percent) went to women (National Center for Education Statistics, 1977, pp. 16-17). Since then, the gap has closed steadily, even though the number of men in this specialization has not dropped off as sharply as in most others. In 1984, women earned 618, or 40 percent of the doctorates in educational administration and supervision awarded that year. If this trend continues, by the end of the decade more women than men will receive doctorates in educational administration, as they currently do in virtually every other area of educational specialization.

Ethnicity of degree recipients

The overwhelming majority of doctorate recipients in education have been white. Among other ethnic groups, only Black students have made a significant showing -- accounting for roughly 10 percent since 1980. Education is the only field in which the proportion of Black doctoral recipients approaches the proportion of Black Americans as a whole. Fifty-five percent of the doctorates earned by Black students in the last five years have been awarded in education, and Black women have earned more than half of them.

As Display 4 indicates, the number of other minority students receiving doctorates has been minimal.

DISPLAY 3 Number of Doctorates Awarded Nationally by Broad Field of Study and Sex, 1974 to 1984

Year	Total*		Physical Sciences**		Engineering		Life Sciences		Social Sciences		Humanities		Education	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1974	26,594	6,453	4,592	384	3,114	33	4,056	906	4,503	1,381	3,594	1,576	5,302	1,939
1976	25,262	7,684	4,089	420	2,780	54	4,013	1,013	4,580	1,634	3,208	1,673	5,185	2,540
1978	22,553	8,322	3,754	439	2,370	53	3,881	1,159	4,178	1,861	2,635	1,596	4,339	2,855
1980	21,610	9,407	3,609	502	2,389	90	4,047	1,414	3,811	2,045	2,335	1,532	4,204	3,383
1982	21,006	10,090	3,715	576	2,522	124	3,829	1,718	3,676	2,381	1,964	1,531	3,551	3,613
1984	20,593	10,660	3,797	656	2,763	152	3,957	1,788	3,488	2,407	1,942	1,586	3,323	3,457

* Includes professional fields not shown in this table.

** Includes Mathematics and Computer Sciences.

Source: 1974-1983: National Research Council, 1983, p. 2. 1984: National Research Council, 1984, pp.34-35.

DISPLAY 4 Number of Doctorate Recipients in Education by Citizenship and Racial/Ethnic Group, 1980, 1982, and 1984

Year	Total Doctorates	Non-U.S. Citizens Temporary Visas	American Indian	Asian	Black	White	Puerto Rican	Mexican American	Other Hispanic	Other and Unknown
1980	7576	507	53	92	602	5676	24	52	77	256
1982	7226	569	29	112	606	5353	43	78	64	117
1984	6780	537	32	92	509	5119	37	72	48	106

Source: Adapted from National Research Council 1980, 1982, and 1984.

Career patterns of degree recipients

Despite the close ties between early university schools of education and public school systems, a majority of education doctorate recipients have not gone into or remained in public school administration. Departments of education in colleges and universities absorbed most of them for several decades after the first degrees were awarded -- for example, 30 of the 39 at the University of Minnesota prior to 1930 compared to only four who remained in public school administration (Eurich, 1931, p. 285). As it became more common for school superintendents to pursue the doctorate, this disparity was gradually reduced, but even by 1960 more than twice as many new doctoral recipients held positions in colleges and universities rather than in elementary and secondary schools. By 1982, the balance still remained heavily in favor of higher education, with 32 percent employed by colleges and universities and only 19 percent by the schools (Display 5).

Andersen's 1983 survey found that recipients of the Ed D. were somewhat more likely than Ph.D.s to be employed by schools than colleges, but they were by no means excluded from college or university employment. School or college employment probably is affected more by the institution awarding the degree than to the type of degree awarded. Thus an early study of employment patterns found that Harvard placed 71 percent of its Ed.D. recipients in colleges and universities, compared to only 20 to 25 percent from Pennsylvania State University, Temple University, and the University of Buffalo and Pittsburgh as well as other institutions (Hollis, 1945, p. 100).

As shown in Display 5, the percentage of doctoral recipients in education still seeking employment at graduation jumped sharply in the early 1970s -- from 14 percent in 1968 to 23 percent in 1972 and it has remained in the 22- to 26-percent range since then. Obviously, this percentage, compared to that of recipients already assured of employment, is one of the strongest clues to the supply and demand situation in various fields of study. In 1984, percentages in the humanities and social sciences ranged from a low of 18 percent in economics to a high of 35 percent in history, with education at 23.5 percent. (Comparison with new doctorates in physical and life sciences is difficult because of their tendency to engage in postdoctoral study.)

Available figures do not indicate how many education doctorates are seeking employment in colleges and universities rather than the public schools. The annual survey of new doctorates by the National Research Council does, however, reveal that only 65 percent of education doctorates in 1984 plan to be employed in any educational system or institution. A growing number have anticipated employment with government agencies (9.4 percent compared with 3.1 percent in 1968) or with business and industry and a variety of non-profit organizations

DISPLAY 5 Postgraduation Plans of Doctorate Recipients in Education, 1960 to 1984

Postgraduation Plans	1960	1962	1964	1966	1968	1970	1972	1974	1976	1978	1980	1982	1984
Number of Doctorates	1,549	1,893	2,351	3,040	4,029	5,857	7,085	7,241	7,725	7,194	7,585	7,226	6,780
Percent Seeking Appointment	14.4%	14.6%	13.1%	13.1%	14.3%	22.6%	22.4%	23.8%	24.5%	26.3%	24.1%	24.6%	25.2%
Postdoctoral Study	.0	.0	.0	.0	.1	.4	1.0	1.2	1.1	1.5	1.2	1.5	1.7
Employment	14.4	14.6	13.1	13.1	14.2	22.1	21.5	22.6	23.5	24.9	22.8	23.1	23.5
Percent Having Definite Plans	83.8	83.8	84.0	84.0	82.5	74.2	72.6	68.7	69.9	66.9	70.4	69.6	69.4
Postdoctoral Study	.5	1.0	.9	.7	1.1	1.4	1.1	1.5	1.4	1.5	1.6	1.7	1.6
Employment	83.3	82.8	83.0	83.3	81.4	72.8	71.5	67.2	68.4	65.4	68.7	67.8	67.8
College or University	49.5	47.1	47.9	51.8	52.7	50.4	45.0	39.0	37.5	34.2	34.4	31.5	
Elementary/Secondary School	21.7	22.9	21.3	19.8	17.6	11.8	15.9	15.4	17.4	16.5	18.4	18.6	
Business and Industry	1.1	.9	.9	1.0	.8	1.1	1.0	1.4	1.7	2.1	3.3	4.8	
Government	4.7	4.1	4.4	3.6	3.1	5.1	6.1	7.8	7.8	8.3	8.0	7.7	
Nonprofit Organization	2.3	2.5	2.8	2.9	2.9	2.4	2.9	2.9	3.3	3.6	3.8	4.4	
Other and Unknown	4.1	5.3	5.7	4.1	4.3	2.0	.6	.7	.6	.6	.8	.9	
Plans Unknown	1.8	1.6	2.9	3.0	3.3	3.3	5.0	7.5	5.6	6.8	5.6	5.8	

Source: 1974-1983: National Research Council Office of Scientific and Engineering Personnel, Doctorate Records File. 1984: National Research Council, 1984, p. 35. (That report does not list percentages by type of employer for those doctoral recipients with definite plans.)

(12 percent as opposed to 4 percent in 1968) (National Research Council, 1984, p. 35).

Length of time between bachelor's and doctoral degrees

The elapsed time between receiving the bachelor's degree and completing a doctorate is considerably greater in education than in any other field -- averaging over 13 years, compared, for example, to six years in chemistry and ten in political science. Education doctorates are therefore also older when they receive their degrees: In 1984, their median age was 39.6 years -- almost five years older than the median in any other subject (National Research Council, 1984, pp. 34-35).

These disparities are not necessarily due to greater part-time enrollment in education than in other fields. In fact, graduate students in history and in several other fields are enrolled over a longer period before completing their doctorates than those in education. Instead, doctoral recipients in education begin their doctoral study longer after earning the baccalaureate than those in other disciplines -- one reason being that the administrative credential in most states requires at least three years' teaching experience.

5 *Supply and Demand in California*

Doctoral programs in education

Fourteen accredited California institutions currently offer doctoral programs in education with a specialization in educational administration or leadership. These include ten independent universities:

Claremont Graduate School
Loma Linda University
Pepperdine University
Stanford University
United States International University
University of La Verne
University of the Pacific
University of San Diego
University of San Francisco
University of Southern California

and four campuses of the University of California:

Berkeley
Los Angeles
Riverside
Santa Barbara

In addition, an indeterminate number of non-accredited California institutions list graduate programs in education among their offerings, but reliable data on these programs are unavailable

Two out-of-state institutions - Nova University and Brigham Young University -- offer educational doctorate programs in California. Nova's two Ed.D programs in educational leadership and higher education enrolled a total of 63 California students in 1985-86, down from 224 in 1975-76. Brigham Young intermittently accepts between five and ten California students from a designated metropolitan area in its individualized study program.

In recent years, several other out-of-state institutions have discontinued offering graduate education programs in California, including Southern Illinois University, the University of Bridgeport, and the University of Northern Colorado.

Doctoral enrollments in education

Display 6 on page 16 presents application, acceptance, matriculation, and enrollment information for California's doctoral programs in educational administration over four years and for doctoral programs in education during 1985-86, as reported to the Commission by the deans of these programs.

Applications: Total applications for admission to the educational administration programs have ranged between 400 and 500 annually in recent years. The number of students who seek admission to these programs each year is unknown because some applicants submit multiple applications.

Offers of admission: The four University of California programs have offered admission to between 50 and 60 percent of their applicants during the past four years, while independent institutions have extended admission to between 65 and 70 percent. (Nova University admits all of its applicants, but its officials explain that no students formally apply who have not been counseled concerning its requirements for eligibility.)

Matriculation: The percentage of applicants offered admission who actually enroll is slightly higher on average at independent institutions than at the University of California -- over the four years, 74 percent, compared to 68 percent.

Enrollment: A total of 1,124 students were enrolled in educational administration programs in 1985-86, compared to 1,144 three years earlier in 1982-83. (In addition, Nova and Brigham Young enrolled 27 students between them in 1985-86.)

Enrollments are largest at the University of Southern California, Pepperdine University, the University of San Francisco, and the Claremont Graduate School, in that order. The smallest programs, in descending order, are at Stanford, Loma Linda, and the Santa Barbara and Riverside campuses of the University of California.

DISPLAY 6 *Applications, Offers of Admission, Matriculations, and Total Enrollment in Educational Administration Programs, 1982-83 Through 1985-86, and in All Education Programs, 1985-86, at California Universities*

	Educational Administration Programs												All Education Programs		
	1982-83			1983-84			1984-85			1985-86			1985-86		
Segment and Institution	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
University of California															
Applications	58	54	112	58	52	110	74	58	132	52	50	102	241	407	648
Offers of Admission	27	30	57	24	27	51	46	31	77	28	34	62	117	209	326
Matriculations	23	25	48	14	16	30	29	18	47	23	21	44	88	146	234
Total Enrollment	107	106	213	108	99	207	99	104	203	114	98	212	350	641	991
Berkeley	33	88	71	31	34	65	29	39	68	42	40	82	124	212	336
UCLA	45	42	87	42	38	80	44	41	85	43	39	82	137	315	452
Riverside			21			21			17			15	30	30	60
Santa Barbara	19	15	34	25	16	41	19	14	33	22	14	33	59	84	143
Independent Universities*															
Applications			291			386			297			311			827
Offers of Admission			217			243			209			219			520
Matriculations			155			184			162			160			398
Total Enrollment			931			896			950			912			2,319
Claremont	89	113	202	75	96	171	65	94	159	52	73	125	182	513	695
La Verne			90			94			110			103			387
Loma Linda				24	12	37	27	19	46	29	18	47	29	18	47
Pepperdine			212			183			169			164	(not reported)		
Stanford			51			59			61			59	119	194	313
San Diego			80			90			100	45	58	106	45	58	106
San Francisco	69	55	124	70	61	131	69	79	148	66	91	157	180	243	423
USC			172			168			213			198			348
All Universities															
Applications			403			496			429			413			1,475
Offers of Admissions			274			294			286			281			846
Matriculations			203			214			209			204			632
Total Enrollment			1,144			1,103			1,153			1,124			3,310

* Excluding the University of the Pacific, which did not report enrollments, and United States International University, which did not return its survey.

Source: California Postsecondary Education Commission.

No enrollment trends are discernible during the four-year period. For example, University of California enrollments fluctuated within a very narrow range from a low of 203 to a high of 213, while those at independent universities ranged from 900 to 950. Enrollment increased slightly at the University of California, Berkeley, but on other University campuses remained relatively stable. Thus current enrollments point to no significant increase in the number of University doctorates in educational administration to be awarded in the immediate future.

Since not all universities reported enrollments by sex, it is not possible to compare men's and women's enrollment. In the University of California, however, slightly fewer women than men were enrolled in the three largest educational administration programs in 1985-86, although women outnumber men by a wide margin in other educational doctorate programs. In all but one of the independent universities that reported gender, the number of women in educational administration programs exceeds the number of men by what appears to be a growing percentage; and in all educational doctorate programs combined they are clearly in the majority.

According to other information supplied by the universities, a large majority of students in educational administration are enrolled for six or fewer credits per term, and approximately one-third of them have completed their courses and are working on their dissertations.

Doctoral degrees in education

California's universities awarded 2,189 doctoral degrees in education from 1981-82 through 1985-86 -- the last year for which data are available -- for an average of 438 per year. They awarded 713 doctorates in educational administration for an annual average of 179 (Display 7, page 18). Independent universities have awarded over 85 percent of these administrative degrees. Among them, the University of San Francisco awarded the most -- 143, followed by the University of Southern California with 121 and Pepperdine with 111.

Educational administration is not a prominent area of specialization on the four campuses of the University of California. All four combined awarded only 24 doctorates in educational administration last year, or 13 percent of the State's total, although they awarded 27 percent of the State's doctorates in education at large. The University's small role in the production of doctorates in this specialty can be illustrated by noting that the University of San Francisco alone awarded 45 educational administration doctorates in 1985-86 -- almost twice as many as the University's four programs combined.

As with enrollments, no trend is apparent in the number of doctorates awarded in education at large during the past four years, except for a 28 percent decline in the total number awarded by the University of California. The number of educational administration doctorates has not declined, however, and because enrollments in these programs have also remained stable in recent years, it is likely that the number of these doctorates awarded each year will also remain in the 165 to 200 range for at least five years.

Most of the recipients of doctorates awarded in education at large by the University of California and such independent universities as Claremont and Stanford obtain positions in higher education, policy research, and governmental agencies rather than in the schools. For example, only about one in every four University of California doctoral recipients in education during the past two years accepted positions in school administration on graduation or returned to such positions (Gifford *et al*, 1986). Among the 621 doctoral students surveyed by the Commission for this report, only 20 percent plan careers in public school administration -- a figure comparable to the national proportion of 18.6 percent determined by the National Research Council and shown in Display 5 on page 12. Among the doctoral students in educational administration surveyed by the Commission, 42 percent plan on entering public school adminstration.

Supply and demand regarding credentialed school administrators

The administrative services credential is the only absolute requirement for the vast majority of administrative positions in California's public schools, and the number of individuals holding or pursuing this credential far exceeds the number of possible openings into the foreseeable future. Thus there seems no danger that administrative openings in California's schools will go unfilled. For example, a 1984 study prepared for Policy Analysis for California Education (PACE) reported that programs then offering

DISPLAY 7 *Doctoral Degrees in Educational Administration and All Education Programs Awarded by California Universities, 1981-82 Through 1985-86*

	1981-82			1982-83			1983-84			1984-85			1985-86		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
University of California															
Berkeley: All:	28	25	53	15	28	43	15	24	39	14	23	37	14	24	38
Administration:				3	6	9	2	7	9	5	6	11	4	6	10
UCLA All:	31	34	65	21	37	58	28	36	64	22	29	51	14	27	41
Administration:				7	2	9	6	3	9	0	1	1	0	2	2
Riverside All:	4	3	7	4	2	6	4	3	7	7	4	11	3	0	3
Administration.				4	2	6	4	4	8	2	1	3	3	0	3
Santa Barbara All:	14	6	20	15	12	27	15	8	23	11	12	23	9	13	22
Administration.				4	1	5	4	1	5	4	2	6	5	4	9
Total All:	77	68	145	55	79	134	62	71	133	54	68	122	40	64	104
Administration:				18	11	29	16	15	31	11	10	21	12	12	24
Independent Universities*															
Claremont All:													12	30	42
Administration:				3	3	6	0	2	2	2	3	5	5	11	16
La Verne All:															10
Administration:						5			18			14			10
Loma Linda All:													9	2	11
Administration:				4	4	8	9	4	13	5	5	10	9	2	11
Pepperdine: All															
Administration.				12	8	20	22	12	34	19	11	30	13	14	27
USC All													8	10	18
Administration				8	11	19	12	13	25	5	7	12	5	7	12
San Diego All													2	4	6
Administration				1	0	1	2	5	7	0	2	2	2	4	6
San Francisco All.													49	49	98
Administration				14	15	29	23	12	35	20	14	34	19	26	45
Stanford All															
Administration.				4	1	5	5	5	10	5	4	9	3	4	7
USC All.													25	26	51
Administration						42			29			29			21
Total All.	116	133	249			364			440			217			281
Administration						135			173			145			155
All Universities All	193	201	394			498			573			339			385
Administration:						164			204			166			179

* Excluding United States International University, which did not return its survey.

Source: California Postsecondary Education Commission.

the credential could completely replace all school administrators in the State every five years and refill all entry-level positions every three years. It based this conclusion on the fact that California granted approximately 14,000 administrative credentials from 1979 through 1982 for "a job category that includes only 16,000 positions overall and for which there currently is no high turnover rate." Even if the number of entry-level administrative positions were to increase over the next five years by the same percentage as the expected increase in school-age population (7 percent),and 18 percent of current administrators were to retire by age 61 over the same time period, the study concluded that California would still produce five times the need unless major changes occurred in credentialing trends. Since then, the State has implemented a two-stage credentialing process that may affect these trends, but enrollments in administrative credential programs also have increased -- in 1984-85 alone by 643 candidates or 14 percent, according to the Commission on Teacher Credentialing. And because the requirements for the permanent credential apply only to already practicing administrators, their impact on the basic dynamic of the administrative marketplace may be negligible.

Demand for education doctorates

An earned doctorate is not a requirement for school administrator employment in California, and few if any school districts specify it for any administrative position, including superintendent, although they may prefer it. At present only 12.7 percent of California's school administrators in 1984-85 held a doctorate, ranging from 4 percent of all assistant and associate principals to 10 percent of principals; 12 percent of program and subject-area administrators; 23 percent of deputy, associate, and assistant superintendents; and 46 percent of all county and district superintendents (California State Department of Education, 1985). Of the 102 districts assisted during the past five years by the California School Boards Association in their search for a superintendent, none required applicants to have the doctorate. Among the twenty superintendents hired in 1985, twelve held the doctorate. (California School Boards Association, 1986).

Display 8 below shows the number of superintendents and associate superintendents who responded to the Commission's survey (described on page 41) and indicated how many years they had served in their present position and whether or not they had earned the doctorate. That display evidences no great demand in the past 20 years for a larger proportion of administrators with doctorates. Indeed, if anything the proportion with the doctorate has declined slightly over the two decades.

DISPLAY 8 Time in Position of Superintendents and Associate Superintendents With and Without the Doctorate

Years in Position	With Doctorate		Without Doctorate	
	Number	Percent	Number	Percent
Superintendents				
0-3	24	50%	24	50%
4-6	13	52	12	48
7-9	9	69	4	31
10-14	9	53	8	47
15-19	3	100		0
20+	3	43	4	57
Total	61	54	52	46
Associate Superintendents				
0-3	13	48	14	52
4-6	6	43	8	57
7-9	5	56	4	44
10-14	9	69	4	31
15-19	1	25	3	75
20+	7	64	4	36
Total	41	52.5	37	47.5

Source: California Postsecondary Education Commission.

An important component of supply and demand rests in the perceptions of the occupational peer group. As shown in Display 9, the Commission survey found some disparity between what is perceived now in terms of expectations for the doctorate and the proportion of administrators at various levels who actually hold the doctorate. The same display also clearly demonstrates that while a large majority of school administrators believe that they themselves can ad

DISPLAY 9 School Administrator Perceptions About the Doctorate for School Administrators

	Percent of Respondents Indicating that the Doctorate Is Now, Will Eventually Be, or Should Be Expected of:			
	Superintendents	Deputy, Associate or Assistant Superintendents	Secondary School Principals	Elementary School Principals
Expected Now	58.9%	30.9%	3.6%	1.0%
Will Eventually Be Expected	81.8	69.5	22.5	11.9
Should Be Expected	65.7	51.2	15.3	11.4
Proportion of Administrators Holding Doctorate Now	46.2	23.2	--------- 9.6% ---------	

Source: California Postsecondary Education Commission.

vance without the doctorate, they see an increasing expectation for the degree at all levels. However, while an increasing need for the doctorate is seen, 56 percent of all school administrators adjudge the prestige and symbolic value of the doctorate as important as the training a doctoral program provides, and 74 percent think that other forms of continuing professional education could further the development of school administrators as effectively as a formal doctoral program.

Demand for school administrators with the doctorate

Projections are precarious when forecasting California's demand for school administrators with the education doctorate. Display 10 compares the responses of administrators, doctoral students, and deans of schools of education regarding the current and expected market for administrators with the doctorate, and, as can be seen, their opinions differ more widely regarding the future than the present, with students and school administrators being far more optimistic in their estimates than the deans.

Beyond these subjective judgments, three more analytic approaches to projecting demand in relation to supply, each using a different base, were considered:

The Gifford et al. approach: Bernard Gifford, dean of the School of Education at the University of California, Berkeley, and the education deans at the three other University campuses offering the doctorate in education have calculated that at a minimum, 73 replacement doctorates will be needed each year to keep pace with the retirement rate of California school administrators. They based this number on a 1984 study for Policy Analysis for California Education (PACE), which estimated that 18 percent of the State's public school administrators would retire over the succeeding five years, thereby reducing school administrator ranks by 577 per year, and the fact that 12.7 percent of administrators currently have the doctorate.

Gifford and his fellow deans point out several factors that may increase California's need beyond the minimal 73:

1. The 18 percent retirement figure may be too conservative;
2. The number of administrative positions will probably increase as a reflection of an increase in the school-age population; and
3. The current oversupply of administrative candidates holding only the administrative services credential will generate interest in hiring those with a higher level of qualification.

Consequently, they predict that California will need between 150 and 200 new doctorates per year over the next five years to fill administrative positions in the public schools. They propose to meet this need by expanding their own programs, adding satellite centers, creating new joint doctoral agreements with the California State University, and establishing programs with other University of California campuses.

The ACSA Approach: Based on a recent survey of California school administrators done in conjunction with the Association of California School Administrators, a higher percentage (26.3 percent) of admin-

DISPLAY 10 *Assessment of Current and Future Markets for Educational Administrators with Doctorates in Education*

	Public School Administrators		Doctoral Students in Education		Deans of Schools of Education	
	Number	Percent	Number	Percent	Number	Percent
Current Market						
Supply Greater Than Demand	203	31.0%	241	47.4%	4	28.6%
Supply Equals Demand	368	56.2	204	40.2	10	71.4
Supply Less Than Demand	84	12.8	63	12.4	0	0.0
Expected Market in Ten Years						
Supply Greater Than Demand	197	28.8	191	35.9	4	28.6
Supply Will Equal Demand	208	30.4	154	28.9	9	64.3
Supply Less than Demand	279	40.8	187	35.2	1	7.1

Source: California Postsecondary Education Commission.

istrators may retire over the next five years than the PACE study estimated. Applying this figure to the number of all school administrators, 4,215 administrators will retire during the half-decade, or 843 per year. To maintain the same proportion of doctorate holders, 107 replacement doctorates would be needed during each of the next five years, with 109 needed annually during the following five, as the proportion of retirees rises to 26.9 percent.

The Commission Approach: The data generated from the Commission survey provides another look at the same issue. Display 8 shows that approximately 48 of the 113 superintendents, or 42 percent, were hired in the last four years. Extrapolating these data to the 692 superintendents in the State (CBEDS) indicates that approximately 294 or 73 per year were hired in the past four years. Depending on whether 46 percent hold the doctorate (CBEDS) or 54 percent (CPEC), 34 - 40 individuals holding the doctorate are hired each year as superintendents.

The same data show no evident trend in the last 20 years toward hiring a higher proportion of superintendents with doctorates; if anything, the proportion seems to be decreasing slightly. There appears, then, to be no historically evident demand for a larger proportion of superintendents with the doctorate. Obviously, however, some superintendents retire each year. Commission data shows 19 percent of the superintendents in its sample are 55 or older which implies their retirement within the next ten years; CBEDS indicates 31 percent of all superintendents statewide are 55 or older. Using these figures, 10-15 percent of all superintendents will retire within the next five years. The following projections of need, however, are based upon ACSA's 26.3 percent retirement figure for *all* administrators noted earlier, which is clearly quite generous in light of both Commission and CBEDS information.

Applying the ACSA retirement figure to all superintendents means that 182 of the 692 superintendents statewide will retire over the next five years, or 36 per year. If anywhere from 46 to 54 percent of these hold the doctorate, 84 to 98 doctorates will be needed to replace these retiring superintendents, or 17 - 20 per year; the Commission will use 19 on average in its estimates to follow.

Applying a similar analysis to associate superintendents yields a similar conclusion. According to Display 11, no particular trend appears in the proportion of associate superintendents hired with the doctorate in the last 20 years. As with superintendents, therefore, no net demand for additional doctorates in the ranks of associate superintendents is indicated. Twenty-seven of the 78 associate superintendents, or 34.6 percent of the total, were hired in the past four years. Using this figure with the total of 2,747 associate superintendents statewide shows that approximately 950 associate superintendents were hired in the past four years, that is, about 238 per year.

A difficulty arises here as to what percentage of these hold the doctorate. In the case of superintendents, CBEDS and Commission sample percentages were very similar (46 percent versus 54 percent). CBEDS data for deputy, associate, and assistant superintendents, on the other hand, show that 23 percent have the doctorate, while the Commission sample of the same group indicates 53 percent. Whatever the reasons for this discrepancy, it seems sensible to resolve the disparity by using the average of the two figures, 38 percent, which translates into 90 associate superintendents with the doctorate being hired each year.

If one applies the ACSA retirement rate of 26.3 percent to deputy, associate, and assistant superintendents, 722 of the 2,747 statewide will retire over the next five years, or 144 per year. Assuming 38 percent hold the doctorate (as derived above), 275 new doctorates will be needed to replace these retiring doctorates over the next five years, or 55 per year.

Thus, according to the Commission approach, 74 replacement doctorates will be needed each year for superintendents and associate superintendents with the doctorate who retire. If one were to project retirements for principals holding the doctorate, 134 would be needed over the next five years, or 27 per year, which increases the Commission's estimate to 101 doctorates needed in California each year.

Adequacy of the current supply of doctorates

As noted earlier, only 20 percent of the doctoral students in education surveyed by the Commission plan on entering public school administration. Applying this percentage to the average number of doctorates produced in California's 14 programs during the past five years indicates that only about 88 doctorates per year are likely to become school administrators -- or fewer than the demand estimated by all three of the projections discussed above.

The deans of the 14 schools were asked, however, to estimate how many additional students their programs could accommodate, using current faculty and thus no additional resources, and assuming no loss in quality. As shown in Display 11 on page 23, the four deans at Berkeley, Santa Barbara, Stanford, and the University of San Francisco responded that they could not accommodate any more students in educational administration; but the others reported that they could add a total of between 287 and 295. This 25 percent increase in capacity would translate into a total supply of 110 doctorates per year going into public school administration, which would satisfy expected demand, albeit narrowly.

Supply could exceed demand by a wider margin, however, if several other conditions prevail:

- If fewer administrators retire during the next five years than the Association of California School Administrators estimates -- a likely possibility, according to statistics from the State Department of Education's California Basic Education Data System, which indicate that between 10 and 15 percent of California's superintendents will probably retire within the half-decade, compared to the 26.3 percent estimated by ACSA;
- If the 14 institutions currently offering programs choose to accommodate more students by devoting additional faculty and other resources to educational administration; or
- If additional campuses of the University of California develop doctoral programs in educational administration, either independently or jointly with State University campuses.

Although the four University of California deans with doctoral programs in educational administration indicate only modest increases in doctoral production without additional faculty, the University at large anticipates approximately a 35 percent increase in its graduate education enrollments, according to its draft graduate enrollment plan.

On the other hand, if the doctorate came to be the required or even the expected degree for all superintendents and most principals in public education, of course, the existing programs could not meet the demand. Yet no firm evidence exists, judging from the percentages of past and current administrators with the doctorate and recent hiring practices of school districts -- of any trend toward school boards imposing such a substantial requirement.

In fact, the California Commission on Teacher Credentialing (CTC) recently adopted the following policy position: "The Commission will not establish the master's degree, or any higher degree, as a state requirement for any California credential" (CTC Newsletter, Vol. 2, No. 5, Jan./Feb. 1987, p. 4.) This position resulted from the CTC's conclusion that there

DISPLAY 11 *Estimated Additional Capacity in Educational Administration and All Education Doctoral Programs in California Universities*

Segment and Institution	Educational Administration Programs	All Education Programs
University of California		
Berkeley	0	0
Los Angeles	5	0
Riverside	15	30-40
Santa Barbara	0	20-25
Total, University of California	20	50-65
Independent Universities*		
Claremont Graduate School	125	0
University of La Verne	30	0
Loma Linda University	15	25
Pepperdine University	30	0
University of the Pacific	7-10	15-20
Stanford University	0	0
University of San Diego	10-15	0
University of San Francisco	0	0
University of Southern California	50	100
Total, Independent Universities*	267-275	140-145
All Universities	287-295	190-210

* Excluding United States International University, which did not return its survey.

Note: The Claremont Graduate School could double its educational administration program only by reducing its enrollment in other specializations, which explains the apparent anomaly in its response. The Stanford School of Education foresees no additional accommodation of students, having just drastically reduced the maximum number of doctoral students it admits each year. Pepperdine University, and the Universities of La Verne and San Diego offer only educational administration or leadership programs, which explains the disparity between Columns 1 and 2.

Source: California Postsecondary Education Commission.

was not sufficient evidence to support the use of the higher degree nor was there adequate support within the profession to warrant such action.

This is not to suggest that practices of school boards will never change. The recent national concern over the quality of public education could gradually extend and make more rigorous the preparatory and continuing education of school administrators, and doctoral programs may come to be viewed as a means of achieving that end. Furthermore, if the supply of available candidates remains abundant, a gradual credential "inflation" may mean that persons holding the degree might have an advantage if other qualifications were equal -- a consideration for women and minorities who are underrepresented in administrative ranks.

From most reports, however, newly appointed school principals and superintendents are still hired more for their successful performance on the job than for advanced degrees they have earned. Moreover, the correlation between overall skill as an administrator and possession of the doctorate is not easily established. Thus at least in the foreseeable future, the demand for doctorates is unlikely to outpace the supply.

6 *Major Issues of Supply and Demand*

THIS section of the report discusses four major issues related to the need for additional doctoral programs in educational administration in California -- (1) the quality and utility of these programs; (2) alternatives to them; (3) access to them; and (4) the need of community college administrators for programs specially tailored to their responsibilities.

Quality and utility of doctoral programs

Calculating the need -- the number of current and future openings -- for those with doctorates in education is complicated by a condition that adds to the difficulties normally associated with supply-and-demand calculations in any field: a lack of agreement on whether superintendents, principals, and other administrators actually need the doctorate to be effective educational leaders.

Certainly the influence of administrators on the quality of education is clear. Kent Peterson and Chester Finn observe that "practically never does one encounter a good school with a bad principal or a high-achieving school system with a low-performance superintendent" (1986, p. 42). In his study of the nation's high schools, Ernest Boyer notes that "in schools where achievement was high and where there was a clear sense of community we found, invariably, that the principals made the difference" (1983, p. 219). And Gilbert Weldy sees the principal as a "teacher of teachers" and the "education expert in the school" (1979, p 37, 42) Nonetheless, the quality of administrative preparation is frequently questioned as is the correlation between educational leadership and professional preparation. Boyer comments that "educational administrators themselves disparage the usefulness of their training," and John Goodlad finds that most school principals do not possess the skill and knowledge to bring about educational improvement (1983).

Assessing quality in graduate programs in education further complicates the effort to determine the need for additional doctoral programs. If one anticipates an oversupply of doctorates in education, it is always possible to impugn the quality of some existing programs and to argue, as several graduate deans have done, that highly qualified graduates of quality programs will ever be in short supply. If one foresees a shortage of doctorates, the need must of course be met by quality programs, not by an increased output from the mediocre.

What is a quality program? Efforts to evaluate the relative quality of graduate programs date from the early 1920s (Pelczar, 1985, p. 177). For the most part, these have involved surveys designed to rate institutions on the basis of reputation and research-related characteristics. Two of the best known, A.M. Cartter's *An Assessment of Quality in Graduate Education* (1966) and K. D. Roose and C. J. Anderson's *A Rating of Graduate Programs* (1970, both published by the American Council on Education) are largely based on reputational surveys. A much more elaborate effort sponsored by the Conference Board of Associated Research Councils in 1982 made use of some 18 separate criteria grouped under the general headings of Program Size, Characteristics of Graduates, Reputational Survey Results, University Library, Research Support, and Publication Records to evaluate programs (*An Assessment of Research-Doctorate Programs in the United States*, 1982).

It is not surprising that the graduate community remains uneasy and generally dissatisfied with all the various methods of assessing program quality. Critics have insisted that they are biased in favor of already highly regarded institutions, that they promote conformity and disciplinary orthodoxy while discouraging experimentation and risk, that the very fact of ranking is pernicious and invidious, and that many of the criteria are ill-suited to applied, practice-oriented, or non-traditional graduate programs (Pelczar, p. 177).

If, according to a prevalent point of view, the purpose of the research-oriented Ph.D. is to advance the state of knowledge in the discipline, then an appropriate indicator of quality in a program is the research produced (in the form of faculty publications and stu-

dent dissertations) and its contribution to the base of knowledge. The definition of quality in practice-oriented programs is more difficult. But if the purpose of such programs, as Jules LaPidus has proposed, is to advance the state of practice in a profession, then the primary measure of a program's quality is the effect its graduates have on that practice ("Assessment of Quality in Graduate Education," 1985, pp. 1-2).

California and other states, if for no other reason than their responsibility for consumer protection, have a interest in insuring that doctoral degrees awarded within their borders represent a high level of professional competence. Yet Robert Biller, Vice Provost of the University of Southern California, recently observed to the Commission for the Review of the Master Plan for Higher Education, "we have all failed substantially in providing sufficient consumer information about how quality is to be assessed, and many have therefore been led to seek a symbol, a doctoral degree, rather than a reality, the knowledge and competencies associated with graduate and/or professional study . . . . we have done no favors by not having created credible means for communicating reliable estimates of quality to those seeking to do advanced work at any level, especially at the doctoral level" (1986).

Proposals for improving doctoral program in education have been offered periodically since their creation. For instance, Lawrence Cremin, president of Teachers College, Columbia University, suggested in 1978 that they be reconstructed to conform to a model developed in 1900 that had four closely integrated components -- general culture, special scholarship, professional knowledge, and technical skill -- and that would develop educators who were broadly cultivated and had mastered some field of knowledge or art as well as the specific skills necessary to perform capably and work "with clients of any age in any field and in any institution." He observed that "three quarters of a century after its brave formulation, the paradigm and the problematics it represented were in shambles." Among other improvements, he called on education faculties to be "a good deal more imaginative than they have in the past with respect to grouping and synthesizing" the content of the doctoral program, and he suggested that the thesis no longer be required but rather remain an option only "for those who have something of thesis length to say."

More recently, Kent Peterson and Chester Finn have argued that administrative "education and certification are ordinarily erratic, oftentimes mediocre, and in some cases even dysfunctional":

> Thus, academic preparation for school leadership is more apt to resemble a slow but lengthy wade along a shallow and meandering stream of unrelated course offerings than the total immersion in a deep pool that is the standard preparation for careers in law, medicine, and academe (p. 46).

One reason for this weaknesses, they claim, is that

> this profession has never reached internal agreement on any particular set of skills that all members should possess . . . . there is no universal competency test akin to the bar examination, and . . . most graduate programs in educational administration are easy to enter, hard to flunk out of, and not very difficult to complete so long as one has stamina . . . (p. 47)

They suggest:

> it is unconscionable that so few of these programs actually equip administrators for their later responsibilities; so few act as effective gatekeepers for the profession by screening candidates at the point of entry; so few reliably build occupational commitment, collegiality, or professional norms by setting high standards and enforcing them through rigorous scrutiny by peers and mentors (p. 54).

Similarly, in its report, *Effective School Principals*, (1986), the Southern Regional Education Board has found that existing programs to educate principals are not sufficiently selective, discourage needed interaction between the colleges and the schools, and."generally do not provide a good match with the skills, knowledge, and behaviors possessed by successful principals."

In a 1984 report, *The Role of the University of California in Precollegiate Education*, the University-wide Program Review Committee for Education chaired by John Goodlad argued.

> A critical task is the need to rethink the education of school administrators -- principals and superintendents -- and to ask whether either they or society are well served by existing requirements and practices. In few, if any, other fields in the public sector is a doctorate, especi-

ally the research oriented Ph.D., a requirement for administrative responsibility. We agree with the 1976 finding of the Cheit Report [*Report of the Academic Program Review Committee for Education* -- an earlier University-wide study of education programs] that doctoral programs have been overused in the continuing education of school personnel.

The Goodlad Committee then recommended that "the University take the lead in initiating a thorough review of existing requirements and practices related to the training of school administrators, including the appropriateness of the Ph.D. and Ed.D. degrees and the appropriateness of accommodating to certain credential requirements" (pp. 14-15).

Finally, the Commission's own surveys of school administrators and doctoral students reveal sufficient discontent with various aspects of existing doctoral programs to raise serious questions about these programs as presently constituted. For example:

- Three-fourths of current administrators think that other forms of continuing professional education could further their professional development as effectively as formal doctoral programs.
- And students, in comparing features of the programs in which they were enrolled to those of an ideal program, registered their strongest displeasure with the minimal number of courses they were able to schedule in disciplines outside the School of Education, the lack of balance between theory and practice, the limited opportunities for supervised internships; the seeming irrelevance of certain course requirements; and such other matters as the inaccessibility of faculty and the functioning of dissertation committees.

These various expressions of concern over the form and content of doctoral programs being offered to school administrators suggest the need for a thorough review of degree and non-degree programs designed to develop leadership in the public schools. Such an inquiry should enlist the participation of individuals representing a broad range of perspectives and command the visibility and influence of other recent commissions on the condition of public education and the preparation of teachers. Until such a comprehensive review is completed, establishing new doctoral programs in educational administration is inadvisable.

Other training programs for school administrators

A more compelling argument for top school administrators in California needing the doctorate could be made in the absence of alternative training programs. At least two such options -- the California School Leadership Academy, and the State's new two-step credentialing process -- are potentially as useful to administrators as most doctoral programs in developing competencies and dealing comprehensively with major areas of administrative concern.

The California School Leadership Academy: The California School Leadership Academy, recently established by the State Department of Education, consists of an Institute for Training Development and Research and a statewide network of 11 Administrator Training Centers. The goal of these centers is to develop effective instructional leadership for new, aspiring, and experienced administrators alike. Launched in the fall of 1986, the centers attracted 6,000 applicants and currently operate with a total enrollment of some 2,000 individuals, who receive the equivalent of 15 days of training per year over a three-year period.

The credentialing process: Each administrator in California's public schools must possess an administrative credential, acquired by completing a series of courses and fieldwork experiences offered by academic institutions approved by the Commission on Teacher Credentialing. Between 1970 and 1981, the Commission issued a single renewable credential that authorized holders to perform any administrative service at any level up to grade 12. In response to a legislative request to consider a separate credential for school principals, however, the Commission developed a two-step credentialing process for all school administrators, a process enacted into law in 1981 to take effect in 1984 (Inglis, 1986, pp. 2-3).

- The first-level Preliminary Administrative Services Credential is valid for five years from its date of issue and is not renewable. Candidates must complete at least three years of teaching, or similar experience in the fields of pupil personnel, health, or library services, plus a professional preparation program consisting of at least 24 credits of direct instruction and field work in eight designated subjects, including educational leadership, management of school personnel, school-com-

munity relations, and educational government and politics. They must complete this program of study at an institution approved for it by the Commission on Teacher Credentialing, and these institutions are responsible for verifying the competencies of their applicants.

- The second-level Professional Administrative Services Credential is also valid for only five years but is renewable. It requires possession of a preliminary credential and a minimum of two years experience in an administrative position, plus completion of a "program of advanced study and appropriate field experience or internship" (*Education Code* Section 15, 44270). This program consist of at least another 24 credits of direct instruction and related fieldwork in eight designated subject areas -- organizational theory, instructional leadership, evaluation, staff development, school law and political relationships, fiscal management, management of human and material resources, and cultural and socioeconomic diversity.

As of October 1986, the Commission on Teacher Credentialing has approved some 47 institutions, including all campuses of the State University except Pomona, to offer the preliminary credential program, and it had approved 23, including 11 State University campuses, for the second-level professional credential program.

California's two-step administrative credentialing process has not been in effect long enough to allow for a thorough evaluation, but it promises to be more effective as both a training and licensing program than its predecessor. Critics of traditional credentialing throughout the country claim that it has focused less on "demonstrating knowledge or proficiency to one's professional peers" than on gaining entry "into the associations of principals and superintendents simply by paying dues to them" (Peterson and Finn pp. 50-52). They have also complained about the absence of admissions standards for entering credential programs, the lack of sufficiently rigorous evaluation procedures in these programs, and the irrelevance of the programs to administrative responsibilities.

California's new system promises to remedy at least the last of these concerns by achieving a better integration of formal instruction with on-the-job responsibilities. The course and fieldwork requirements are sufficiently extensive -- some regard them as too demanding for all but the top administrative positions -- to suggest an equivalency to requirements for the doctorate. It seems quite likely that as the second-step programs gain maturity, more opportunities for students to coordinate credential and doctoral programs will be made available.

Limited access to programs

All 14 of California's universities that offer the doctorate in educational administration are located in major metropolitan areas, but four of them also offer off-campus courses toward the doctorate in outlying areas:

- The University of California, Santa Barbara, at the Ventura Learning Center;
- The University of La Verne in Fresno, Orange County, Sacramento, San Bernardino, San Jose, and Ventura;
- Pepperdine University in Orange County; and
- The University of Southern California in Orange County, Sacramento, San Diego, and San Jose.

In addition, eight of the 14 schedule all of their doctoral courses in education during late afternoon, evening, or weekend hours for the convenience of school administrators and teachers; and four others offer at least 70 percent of these courses then. Only the University of California, Berkeley, and Stanford offer less than this percentage of courses at those times.

Nonetheless, access to these programs is limited to potential students in some areas because of geography and cost. Fresno and its surrounding counties in central California constitute one such area. Even though the University of La Verne and out-of-State institutions offer off-campus programs there, their tuition and fees are naturally higher than fees at the University of California, whose closest programs are in Berkeley and Santa Barbara.

Tangible evidence of this problem consists primarily of a number of letters about limited access to the chancellor of the State University and the executive director of the Postsecondary Education Commission. In addition, however, staff in the Office of the Chancellor have calculated that California residents have fewer opportunities to pursue education doctorates in public institutions than do residents of other urban industrialized states, noting that the number of education doctorates awarded in California as a

percentage of those awarded nationally is smaller than that in other fields. For example in 1981-82, California institutions awarded 12.5 percent of all doctorates in biological sciences, 15.0 percent of all doctorates in engineering, 13.6 percent of all doctorates in physical sciences, but only 5.1 percent of all doctorates in education. Thus in California, "the overall opportunities to earn education doctorates are considerably less than in other fields" (Smart, 1986).

Even if these percentages did not fluctuate markedly from year to year -- for example, California's education percentage was 8.4 in 1983-84 -- degree production in other states is not the most compelling measure of lack of "overall opportunities to earn education doctorates" in California. Access to doctoral programs will invariably be more difficult for some persons than others in as large a state as California. Moreover, while it is reasonable to assume that more students would be encouraged to enroll in doctoral programs if they were more accessible geographically and financially, from the Commission's several surveys, location and costs do not appear to be as common obstacles to pursuing the doctorate as are time, family, and job constraints. Thus among students who responded to the Commission's survey, 35 percent listed cost and 16 percent listed distance as major difficulties, while 57 percent identified time, family, or job considerations as barriers -- as did 66 percent of school administrators.

In addition, a major policy question exists regarding the extent to which the State should be responsible for insuring that degree programs are convenient for all who desire to enroll. Like most states, California has answered this question differently depending on the level of the degree:

- At the associate-degree level, the goal of making at least two years of college nearly as accessible as the public high school has been virtually achieved.
- At the baccalaureate level, opportunities to pursue a degree in publicly supported institutions are now also within reach of Californians in most regions of the State.
- At the master's degree level, however, access to programs is less assured; and at the doctoral and professional level, it is more limited still.

Both fiscal and educational reasons exist for higher levels of degree programs to enroll fewer students

While it is in the public interest that all persons be educated to the limits of their capacity, the realities of an increasing public expense for higher levels of education and the conditions necessary for graduate education effectively rule out the possibility of establishing doctoral programs within commuting distance of all who might wish to enroll.

Obviously, a strong case can be made for expanding access to publicly supported doctoral programs if a compelling social need for the programs' graduates is demonstrated. But the evidence of supply and demand presented in Chapter Five fails to support the creation of new programs to meet the need in educational administration.

The desirability of expanding the representation of women and minorities in leadership positions in the public schools is widely acknowledged. At the present time, 92 percent of California's school superintendents and 71 percent of public school principals are white males. There is little direct evidence, however, that women or minorities encounter more difficulties in pursuing the doctorate than other students. Already women outnumber men in education doctoral programs by a growing margin, and Black doctoral students are better represented in education than in any other field. To expand the representation of women and minorities in educational administration, other assistance may be more effective than the creation of more programs.

Need for an education doctorate for community college dministrators

Although several of California's 14 doctoral programs in education offer a specialization in higher education, the choice of graduate programs in California specifically designed to develop the leadership competencies and potential of community college administrators is presently extremely limited.

To the extent that school and community college conditions present similar administrative challenges -- collective bargaining, State funding practices, open admissions, and an organizational structure based on local district patterns -- graduate programs designed for public school administrators may serve many of the training needs of community college officials as well. But community colleges have increasingly developed a division of administrative responsibilities that have more in common with other colleges and universities than with the schools. The

most suitable advanced degree programs for their administrators, therefore, are likely to be those that offer a concentration in higher education, and even more desirable, those designed specifically for community colleges. It is significant in this regard that public school administration is a much less common route to the presidencies of community colleges than it was 20 years ago. Nationally, only about 7 percent of current community college presidents came to their first presidency from the public schools, compared to 25 percent in 1960 (Vaughan, 1986, pp. 28-29).

While a program suitable for both community college presidents and school superintendents and principals is conceivable, an all-purpose doctoral program in educational administration seems less appropriate for other community college administrators. For example, deans of instruction, like their counterparts in four-year colleges and universities, would probably find a doctorate in their academic discipline more useful; deans of students, deans of vocational education, and business officers could benefit most from specially tailored programs, if in fact the doctorate is a proper degree for them; and many faculty members would welcome doctoral programs more in keeping with their professional responsibilities than existing ones.

What the structure and content of these programs should be -- a relatively neglected topic in graduate education -- is beyond the scope of this study but warrants serious attention. Unlike the ambivalence toward the degree still prevalent in the public school system, the doctorate is the accepted credential for leadership positions in higher education. But unless the degree is to be earned merely as a credential without regard to its professional relevance, there should be more opportunities than presently exist for graduate study tailored to the particular concerns and responsibilities of community college administrators. Unlike public school administrators who have access to a variety of preparatory and in-service training opportunities, community college administrators have few formal training programs apart from degree programs offered by graduate institutions. For all of these reasons, additional doctoral programs relating directly to their professional responsibilities are needed.

7 *Findings, Conclusions, and Recommendations*

Findings

These findings from the previous chapters are worthy of note in assessing supply and demand regarding educational doctorates in California:

1. Between 20 and 25 percent of the doctorates awarded in the United States each year since 1960 have been in education, but the number of education doctorates has declined considerably during the past five years (page 9).

2. In 1983, for the first time in any major field, the number of women receiving education doctorates exceeded the number of men earning the degree (page 10); and in California, women enrolled in education doctoral programs outnumber men by a steadily increasing margin (page 16).

3. For at least the past 20 years, the specialty of educational administration has attracted more doctoral students than any of the many other subfields within education, averaging almost twice as many degree recipients as the next most popular subfield -- curriculum and instruction (page 10).

4. Fourteen accredited universities in California currently offer doctoral programs in educational administration. Enrollments in these programs have remained steady at slightly over 1,100 for the past five years, with just over 200 of these in the four University of California campuses that offer the program (page 15).

5. The total number of degrees awarded in these administrative programs has ranged from 164 to 204 a year since 1981 and has averaged 178 annually. The four University of California programs have awarded only 15 percent of these doctorates during this period, however, compared to 29 percent of all education doctorates in the State (page 17).

6. Persons currently holding the administrative services credential -- the only State requirement for any position in public school administration-- are far in excess of the number of possible openings for the foreseeable future (page 19).

7. Sixteen percent of California's school superintendents, 23 percent of deputy, associate, and assistant superintendents, and nearly 10 percent of school principals currently hold the doctorate, although it is a formal requirement for few, if any, administrative positions in California public schools. For example, none of the 102 districts that conducted a search for a new superintendent during the last five years specified the doctorate as a necessary requirement (page 19).

8. In 1985-86, California's doctoral programs in educational administration received a total of 413 applications from potential students, offered admission to 281 of them, and enrolled 204. According to some projections, the number of new doctorates they produce may fall short of the number needed to maintain current percentages of school administrators with the doctorate. Yet the deans of the schools that offer these programs estimate that space for as many as 295 additional students each year is available or could be made available without additional faculty (pages 15, 20-22).

9. Considerable dissatisfaction is evident with doctoral programs for school administrators as they are presently offered. Three-fourths of California school administrators surveyed by the Commission think that other forms of continuing education could further their development as effectively as a formal doctoral program; and a majority of current students in the programs surveyed by the Commission indicate a lack of satisfaction with the small number of courses they could take outside of education, the limited internship opportunities, the relevance of some re-

quired courses, and other features of their programs (page 26).

10. Several options for improving the skills of school administrators, other than doctoral programs, are currently available in California, including the program for earning the administrative credential and the newly established California School Leadership Academy (page 27).

11. Access to doctoral programs in education is difficult for a variety of reasons, especially for those living in some regions of the State. Fees for off-campus programs offered by independent institutions in locations beyond easy reach of a publicly supported program discourage some potential students, although from the Commission's several surveys, location and tuition costs do not appear to be as common obstacles to pursuing the doctorate as are time, family, and job constraints (page 28).

12. At the present time, 92 percent of school superintendents and 71 percent of principals in California's public schools are white males (page 29).

13. Specially designed doctoral programs for administrators in California's Community Colleges, as well as other opportunities for their professional development, are extremely limited.

Conclusions

These conclusions can be drawn from the evidence of previous chapters:

1. While there is a general perception within the education profession that more school administrators will be expected to possess the doctorate in the future, there is no discernible trend toward formally requiring the degree.

2. It is unlikely that any administrative position in the public schools will go unfilled for want of candidates who lack the basic qualification.

3. Although the program for the second-level "professional" administrative credential requires advanced courses in subjects that parallel those in most doctoral programs, no general movement toward coordinating the two programs is apparent.

4. No compelling evidence exists that the supply of persons with the doctorate in educational administration will fail to meet the demand within the next decade. Even though estimates of the numbers of additional students existing programs could accommodate are to some extent arbitrary, it is reasonable to expect that many of these programs could be expanded if demand warranted.

5. It is reasonable to assume that some additional students throughout the State would be encouraged to enroll in doctoral programs if they became more accessible geographically and financially, even though the number of these students in difficult to predict. To what extent the State should be responsible for insuring that these programs are convenient for all qualified applicants is an open question, however, since the State currently has no policy that would assure convenient access at public expense to doctoral programs in education.

6. A broader representation of women and minorities in top administrative positions in California's public schools is an important goal. Insofar as the doctorate in education may be a means of redressing the balance, they should be used to do so.

7. A thorough review of the content and structure of doctoral programs in educational administration and their relation to other modes of training for school superintendents and principals is seriously needed.

8. Some additional doctoral programs specifically designed to develop the leadership competencies of administrators in California's Community Colleges are justified.

Recommendations

The Commission offers two recommendations based on the above findings and conclusions:

1. *Creation of new doctoral programs*

Since the number of persons currently holding the administrative services credential -- the only State requirement for any position in public school administration, is far in excess of the number of possible

openings for the foreseeable future, and therefore no positions are likely to go unfilled; and

Since there is no agreement that the doctorate as presently offered is a necessary or appropriate degree for most school administrators, nor is there is a discernible trend toward formally requiring the degree in more cases than it is now; and

Since there is no compelling evidence that existing programs will be unable to produce the number of doctorates needed to maintain current percentages of school administrators with the degree, and since most of these programs can accommodate additional students in educational administration; therefore

The Commission recommends that, at the present time, no new doctoral programs in educational administration be established in any institution not now offering the degree. Recognizing that some efforts are currently underway to plan new programs -- including joint doctoral programs -- which respond to issues of access and equity, the Commission recommends that any such programs be developed to reflect concerns for such issues and concern for the quality, content, and effectiveness of existing programs.

2. *Review of preparation for California Community College administrators*

Since additional doctoral programs specifically designed for California Community College administrators are needed; and

Since it would be possible and desirable to solicit a wide range of opinion in designing a model program; therefore

The Commission recommends that an intersegmental committee investigate the needs and propose possible structures, components, and modes of delivery for doctoral programs designed specifically for present and future administrators in California's Community Colleges.

APPENDIX *Commission Surveys*

IN an attempt to develop some understanding both of the supply and demand for holders of the education doctorate, particularly those in educational administration, Commission staff sent four surveys to the field. The first survey was sent to the deans of all graduate schools in California that offer the doctorate in education to determine the supply side of the equation. A second questionnaire was sent to students enrolled in programs for the education doctorate during 1985-86, as they constitute supply moving down the pipeline to fill demand. The third and fourth surveys were sent to a systematic random sample of elementary and secondary school administrators and to Community College administrators as representing two occupational demand areas.

This appendix to the report describes the methods used by the Commission to survey these four groups, analyzes their responses, and includes summary tables of responses. Sample copies of the questionnaire forms are available on request from the Commission.

Survey of deans of schools of education

The 14 deans of education were requested not only to complete a survey that included a detailed statistical summary of doctoral students but also to send a list of names and addresses of students enrolled in their doctoral programs in 1985-86. The Associate Vice President-Academic Affairs in the Office of the President at the University of California transmitted the surveys to the four University campuses offering a doctorate in education, and the President of the Association of Independent California Colleges and Universities wrote a transmittal letter encouraging the support of each president of the ten independent institutions that received the questionnaire. A follow-up letter sent by Commission staff to the campuses a week later made three clarifications or additions to the original survey.

Of the 14 institutions surveyed, all but United States International University responded, and it sent a list of its students.

Survey of students enrolled for the education doctorate

Methodology

A survey questionnaire was sent to 1,127 individuals, or 30 percent, of all students enrolled during 1985-86 in all programs leading to the education doctorate on the Berkeley, Los Angeles, Riverside, and Santa Barbara campuses of the University of California and at nine private accredited institutions -- Claremont, La Verne, Pepperdine, Stanford, University of the Pacific, University of Southern California, University of San Diego, United States International, and the University of San Francisco. (Loma Linda University did not respond to the Commission's request to survey its students.) Commission staff used lists or address labels provided by each institution of its students and selected every third name from these rosters. In the case of Stanford, Commission staff provided the appropriate number of questionnaires, which Stanford then sent to its own students. An extensive pretest of the survey instrument to a sample of students from each of the institutions resulted in substantial revision to several questions appearing in the final version of the survey.

Fifty-five percent of the sample, or 621 students, returned their surveys, a response rate ranging from 75 percent from the Riverside campus of the University of California to a low of 34.5 percent from the University of the Pacific. Of the respondents, 176 students, or 28 percent, are enrolled in educational administration. To provide the most comprehensive information possible, the data in the following analysis of students in all education doctorate programs is supplemented, where relevant, by the responses of those enrolled in the educational administration specialty alone.

Analysis

Mirroring the data on enrollments provided by the deans of California's schools of education, nearly two-thirds of all doctoral students in the Commis-

sion's sample are women, over 80 percent are white, and most are in their mid-thirties to mid-forties. In educational administration programs, 56 percent are women, while ethnicity and age remain comparable to the total sample. Approximately equal numbers already hold the multiple subject/elementary credential or the single subject/secondary credential. Nearly one-third also hold the administrative services credential, and 14 percent have a Community College credential. The percentages are approximately the same for educational administration students, although only 6 percent hold a credential for the Community Colleges. Seventy-nine individuals responding indicated that they already had a Ph.D. or Ed.D., presumably obtained during 1985-86, which implies that seven and a half years is the mean time to degree. Nineteen respondents in educational administration programs had already obtained the degree indicating nine years to the degree in this specialization.

Five out of six students in the sample are currently employed, with approximately 43 percent in the K-12 system, 37 percent in college and university positions, and 20 percent in other fields. A slightly higher proportion of men (61 percent) than women (53 percent) feel they can advance in their present occupation without obtaining the doctorate. Close to two-thirds of the sample, however, do not expect to remain in their current position for at least three years after obtaining the doctorate. Nearly 40 percent view university or college teaching as their primary long-term career goal and another 20 percent look to careers in other fields, primarily educational consulting. In fact, 48 percent of the women aim to become college faculty members compared to 38 percent of all men. The long-term career goals of the sample conform to the national pattern in that about 20 percent of these students aim toward careers in public school administration. Eight percent are looking toward Community College administration and 10 percent to university administration.

In contrast, of the 94 percent of the educational administration students who are currently employed, approximately 65 percent are in the K-12 system, 20 percent in college and university positions, and 14 percent in other fields. Again, a higher proportion of men (48 percent) than women (35 percent) feel they can advance in their present occupation without obtaining the doctorate. Sixty-one percent do not expect to remain in their current position for at least three years after obtaining the doctorate.

Fully 42 percent of the students in educational administration are aiming for positions in public school administration, while 20 percent are looking toward university faculty positions, and the others are fairly evenly distributed among community college administration (10 percent), university administration (13 percent) and other career fields (16 percent).

One-half of all students enrolled in a program leading to the education doctorate in California may be found in three institutions: UCLA, USC, and USF, each with approximately 17 percent of the total. The other three University of California campuses offering this doctorate enroll approximately 16 percent of the total, while the remaining 33 percent of the doctoral students are scattered among the other private institutions. The Commission's sample very closely approximates this configuration. In educational administration, on the other hand, the independent institutions supply 80 percent of the doctorates, with 19 percent coming from USC, 14 percent from La Verne, 12 percent from USF, and 10 percent from Pepperdine.

The survey respondents in all programs leading to the education doctorate are enrolled almost evenly in Ph.D. and Ed.D. programs with 28 percent overall in educational administration or supervision programs and approximately 11 percent each in curriculum and instruction, higher education, and school or educational psychology. In the educational administration specialty, nearly three out of four candidates are pursuing the Ed.D. Of those in all programs who did not complete their degree or stop-out during 1985-86, 42 percent had been advanced to candidacy and were working on their dissertations, 17 percent had completed course requirements and were presumably preparing for their orals and/or written comprehensives or their dissertation proposals, and 40 percent were taking courses for credit (21 percent part time, 19 percent full time).

When asked if the prestige and symbolic value of the doctorate were as important as the training provided, 56 percent of all student respondents and 58 percent of those in educational administration agreed. Only the University of California,Berkeley, and the University of La Verne had nearly two-thirds of their students answer in the negative; the majority of the students at all other institutions answered affirmatively.

Results of Commission Survey of Currently Enrolled Doctoral Students

1. Institution Attending	Number	Percent
Berkeley	56	9.3%
UCLA	100	16.6
Riverside	15	2.5
Santa Barbara	28	4.7
Claremont	45	7.5
La Verne	32	5.3
Pepperdine	45	7.5
Stanford	48	8.0
UOP	19	3.2
USC	88	14.6
San Diego	23	3.8
US International	27	4.5
USF	75	12.5

2. Sex	Number	Percent
Male	222	36.2%
Female	391	63.8

3. Ethnicity	Number	Percent
White	500	81.7%
Black	43	7.0
Hispanic	27	4.4
Asian	27	4.4
Filipino	0	0.0
Pacific Islander	1	0.2
Native American	5	.8
Other	8	1.3

4. Area of specialization of doctorate	Number	Percent
Adult and Continuing Education	10	1.6%
Counseling/Personnel Services	37	6.0
Curriculum and Instruction	69	11.2
Educational Administration and Supervision	176	28.5
Higher Education	69	11.2
School/Educational Psychology	65	10.5
Social/Philosophical Foundations	15	2.4
Special Education	43	7.0
Community College Administration	4	.6
Other	129	20.9

5. Degree Program	Number	Percent
Ph.D	292	47.3%
Ed.D	325	52.7

6. Is the prestige and symbolic value of the doctorate as important as the training?	Number	Percent
Yes	329	55.9%
No	260	44.1

7. Does the institution awarding the doctorate matter?	Number	Percent
Yes	456	76.9%
No	137	23.1

8. Does it matter if the degree is a Ph.D or an Ed.D?	Number	Percent
Yes	339	58.4%
No	241	41.6

9. Preferred degree for those expressing a preference	Number	Percent
Ph.D	307	96.5%
Ed D	11	3.5

10. Are other forms of continuing education as effective as a formal doctoral program?	Number	Percent
Yes	339	58.4%
No	241	41.6

11. Other types of continuing education identified	Number	Percent
Certification Programs	33	22.6%
On-site training/Internships	26	17.8
Workshops/Seminars	19	13.0
Individualized study	26	17.8
Other	42	28.8

12. Difficulties in obtaining doctorate as identified by students	Number	Percent
Time/Family/Job	320	57.0%
Program aspects	222	39.6
Cost	194	34.6
Distance	90	16.0
Other	32	5.7

13. Useful aspects of doctoral program as identified by students

	Number	Percent
Required writing/Dissertation	53	8.9%
Research	173	29.0
Specific courses	176	29.5
Contacts/Networking	198	33.2
Theoretical grounding	95	15.9
Practical applications	111	18.6
Self-esteem/Self-confidence	80	13.4
Intellectual development	103	17.3
Other	113	18.9

14. Top reason for choosing a doctoral institution

	Number	Percent
Convenience of location	106	18.7%
Convenience of schedule	74	13.0
Need for specific program	82	14.4
Reputation of institution	199	35.0
Affordable costs	22	3.9
No other program available	23	4.0
Other	65	11.4

15. Top reason for enrolling in a doctoral program

	Number	Percent
Job advancement/Promotion	168	28.9%
Intellectual growth	210	36.1
Career change	86	14.8
Salary increases	3	0.5
Societal expectations	8	1.4
Personal satisfaction	77	13.2
Prestige	4	0.7
Other	36	6.2

16. Long-term career objective

	Number	Percent
Public school administration	129	21.4%
Community college administration	50	8.3
University/College faculty	271	44.9
University administration	90	14.9
Other	191	31.6

17. Credentials held

	Number	Percent
Multi-subject/Elementary	147	33.1%
Single-subject/High school	156	35.1
General administrative	181	40.8
Community college administration	89	20.0
Handicapped/Special education	40	9.0
Pupil/Personnel services	62	14.0
Other	191	43.0

There are more subtle indicators of prestige as well. Seventy-seven percent of all students and 75 percent of those in educational administration believe that the institution where one receives the doctorate matters. Indeed, a far greater percentage of students agreed with the importance of institutional reputation when they themselves attend institutions commonly thought to be prestigious, such as Stanford and Claremont. Fifty-eight percent of the sample of all education doctorates think that the type of doctorate in education will affect one's professional advancement, although far fewer advance this opinion if they attend institutions where the Ed.D. is more frequently awarded than the Ph.D. in education. For example, only 44 percent of those in educational administration programs where 73 percent receive an Ed.D, think there is a difference. Of those responding to the question, an overwhelming 96 percent of all students think the Ph.D. is preferable. In almost direct contrast to the response of the school administrators, 70 percent of students enrolled in all education doctorate programs and 64 percent of those in educational administration do not think that other forms of continuing education could

further their professional development as effectively as a formal doctoral program.

Most students in all education doctorate programs had enrolled in the program for reasons of intellectual growth and job advancement; more students in educational administration enrolled for the former reason than the latter. Over a third chose the particular institution they attend on the basis of reputation, while 19 percent indicated convenience of location.

Fifty-seven percent of all students mentioned time, family, and job constraints as major difficulties to pursuing the doctorate, while 40 percent pointed to a number of program aspects as deterrents, such as too many course requirements, perceived frequently as not being relevant; problems with dissertation committees in getting proposals approved and dissertation drafts returned; lack of faculty support, particularly advisers being gone during crucial stages of the student's program; and finally, what the students called "unreasonable" residency requirements. Students answered this question about difficulties or inconveniences experienced while pursuing the doctorate with specificity, honesty, and often obvious anger. It should be pointed out that only 28 percent of those in educational administration mention program aspects as difficulties. Twenty-nine percent of these students indicate costs, compared to 35 percent of all students, while 64 percent single out time, family, and job constraints. On the positive side, approximately 30 percent of the students noted networking, specific courses, and research methods as those aspects of their program which they thought would prove most useful to them, either professionally or personally in the future.

One of the most interesting aspects of the survey contrasted the students' description of their current doctoral program with an "ideal" program. The following disparities and similarities appeared:

- Fifty-eight percent of the total sample, and 45 percent in educational administration, attend institutions that currently require work for the doctorate to be taken in academic disciplines or departments outside the school of education, whereas fully 81 percent of the students, and 77 percent in educational administration, either agree or strongly agree that this should occur. The majority of students at the Berkeley, Los Angeles, and Riverside campuses of the University of California and at Stanford, USC, and USIU would describe their institutions as requiring work outside education. Nearly three-quarters of the students at La Verne, Pepperdine, UOP, and USF, on the other hand, aver that work for their degrees is done in the campus School of Education.
- Seventy-one percent of the students, and 80 percent in educational administration, believe their current program demonstrates a balance between theory and practice but 95 percent of all, and 96 percent in educational administration, yearn for such a balance in an ideal program. At the same time, however, 70 percent of all students, and 74 percent of those in educational administration, wish they could have more emphasis on practical approaches to educational issues and problems. The only three institutions whose students would describe their programs as having more emphasis on a hands-on approach are La Verne, USIU, and USF.
- In the opinion of 77 percent of the sample students, and 80 percent in educational administration, current programs are highly structured with several formal requirements rather than individualized with few formal requirements; only about half the students desire such structure, or in the case of educational administration, 64 percent of the students. The only institution whose students characterized it as individualized is Claremont.
- Ninety-one percent of all students, or 93 percent in educational administration, attend programs that give no credit for on-the-job experience; about half the students, or 54 percent in educational administration, would prefer the awarding of experiential credit.
- Whereas only 54 percent of all students, and 52 percent of students in educational administration, attend institutions that give credit for previous degree or credential work, 80 percent of all, or 77 percent of the specialty, agree or strongly agree that they should. Approximately 90 percent of the students at Claremont, Stanford, and USC report that their schools offer such credit.
- Seventy-six percent of the sample, and 68 percent in educational administration, believe that they have opportunities to work with faculty on educa-

tional research: 97 percent in every case want such opportunities.

- Supervised internships exist in programs of 60 percent of the students, or for 48 percent of those in educational administration. Ninety-three percent, or 88 percent of those in educational administration, believe an ideal program would offer such internships. A higher percentage of students at Berkeley, UCLA, Claremont, Stanford, UOP, University of San Diego, USIU, and USF would describe their programs as affording this opportunity than would not.
- Only six (1.0 percent) of the sample report that their institution requires no dissertation. At some point, there will be six very surprised students in various doctoral programs throughout the state.
- Ninety-five percent of all students, or 90 percent of those in educational administration, think dissertations should be required.
- Comprehensive examinations are currently given in the programs of approximately 84 percent of the students, regardless of specialty, 78 percent of all students, and 81 percent of those in educational administration, support the tests' existence.
- Ninety-five percent of all students, and 92 percent in educational administration, believe that their institutions exercise selective admissions policies and 96 percent, or 98 percent in the specialty area, agree that such policies should exist.
- Three-fourths of all students, or four-fifths of educational administration students, describe their programs' grading as rigorous; only UC Santa Barbara had a dramatically lower proportion of all students agreeing with this description. Overall, 84 percent of the sample, or 90 percent of the specialty, would include rigorous grading policies in their ideal program.
- Ninety-one percent of all doctoral students, or 83 percent in educational administration, would like independent study courses, and the programs of 81 percent of the total, or 68 percent of those in educational administration, offer them. Only one-third of La Verne's students agree that independent study describes their program.
- Almost two-thirds of the sampled students, but only 41 percent of those in educational administration, are in programs without off-campus centers, although 77 percent of all students, and 81 percent in the specialty,would prefer the option of taking courses at off-campus locations. UC Santa Barbara, La Verne, Pepperdine, USC, and USIU offer courses toward the doctorate off campus.
- Nearly 90 percent of all students, and 97 percent of students in educational administration, attend programs that offer courses during late afternoon and evening hours or on weekends; an agreeable match to the 95 percent, or 98 percent in the specialty, who think such alternative scheduling is necessary.
- Three-quarters of all students and also of educational administration students, attend programs with a residency requirement; a third of the total and a quarter of the specialization would not include such a requirement in an ideal program.
- Programs of 80 percent of all students, or 85 percent in educational administration, also require continuous registration until the dissertation is completed; students in the sample are split quite evenly in their opinion about this requirement, whereas 62 percent of those in educational administration agree with it.

In summary, then, the closest agreement between the students' perceptions of the real and ideal worlds, i.e., between what is and what should be in their estimation, occurs in the existence of a dissertation requirement; comprehensive examinations; selective admissions policies; rigorous grading policies; and courses given in the late afternoon, evening, or weekends. There is enough disparity in the responses to warrant discussing the need for more work to be required in academic disciplines outside the School of Education; the balance needed between theory and practice in programs leading to the education doctorate; individualized versus structured programs; experience given for on-the-job experience and prior degree or credential work; more opportunities to work with faculty on educational research and to have supervised internships; the need for independent study courses and off-campus programs; and a review of the residency requirement and continuous registration through preparation of the dissertation. These similarities and disparities hold true both for all students and for those in educational administration; there is no appreciable difference in their responses. It bears repeating that the Commission survey purposefully chose not to

evaluate the quality and effectiveness of the programs, only their structural characteristics.

Survey of California school administrators

Methodology

Commission staff used as its sampling frame the membership list of the Association of California School Administrators (ACSA) which represents 80 percent of all K-12 school administrators in the State. Because the researchers were interested in responses differentiated by job category, a stratified weighted sample was selected of district and county superintendents; deputy, associate, and assistant superintendents; principals; assistant and vice principals; and of other job titles such as teacher, psychologist, counselor, etc. Care was taken that each sample spanned the State geographically, as the names were listed on the membership roster by zip code rather than alphabetically or by job category. The survey in draft form was pretested on administrators in one suburban and one urban K-12 district; the final survey reflected many of the comments and suggestions of this pretest population.

Analysis

The 725 school administrator responses to the Commission's survey represent 52 percent of the total sample population, ranging from a 46 percent response rate for elementary and secondary school assistant principals to 60 percent for county/district superintendents. Over two-thirds of these administrators are men and eight out of nine are white. Hispanic administrators slightly outnumber Black administrators (5 percent to 4 percent). In age, however, the administrators distribute themselves much more evenly with most in their 40s and 50s, a sizable proportion (18 percent) in their 30s, and almost no one under 30 or over 60 years of age. Seventy-nine percent of these administrators have been in their present position less than ten years. Of those who responded to the question about ultimate career goals, 38 percent seek to be a superintendent. Other goals vary from "being a fishing guide in the Northwest" to "dying at my desk."

The vast majority of these California administrators hold a master's as their highest degree (72 percent), and 85 percent have their highest degree in education. Of the 17 percent (123) holding an Ed.D. and 6 percent (47) with a Ph.D., 14 obtained their doctorate at a University of California campus; 108 at an accredited independent institution in-state, including 58 from the University of Southern California; four from non-accredited institutions in California; three from Nova University; six from Brigham Young University, and 30 from other out-of-state colleges and universities. Fifty-eight percent received their doctorate between 10 and 20 years after earning their bachelor's degree, while 3 percent had over a 30-year hiatus. When asked what major difficulties or inconveniences they encountered while pursuing the degree, two-thirds of the doctorate holders noted the constraints of job, family, or time, while a quarter each mentioned distance and costs. When asked what aspects of the doctoral program had proved most useful to them either professionally or personally, the highest percent (27.3) pointed to "networking" as most useful, while research methodology (20 percent), specific courses (19 percent), and intellectual growth (18 percent) were frequently indicated. Fewer people found the required writing, preparation of the dissertation, or the theoretical grounding they received of use to them later, although the fact that some people mentioned these points makes them more noteworthy than if they had not made the list at all.

While 57 percent thought that having a doctorate was helpful in securing their present position and 66 percent consider the doctorate helpful in preparation for their present responsibilities, 63 percent of those school administrators holding the doctorate believe that they could advance without having obtained the degree.

Fifty-six of the total sample of school administrators drawn by the Commission are currently enrolled in a doctoral program, almost half at the University of Southern California and at the University of La Verne. Forty students are pursuing the Ed.D. and 16 the Ph.D. As many are enrolled in educational administration/supervision programs as in all the other areas of specialization combined. Four-fifths of those administrators enrolled in a doctoral program point to job, family, or time constraints as a major difficulty or inconvenience, while nearly a third identified particular aspects of their doctoral program as an obstacle.

A sizable proportion of California school administrators (20 percent) plan to enroll in a doctoral program

Results of Commission Survey of School Administrators

1. Position of respondents	Number	% of Responses	% with Doctorate
Superintendent	116	16.0%	53.4%
Asst./Deputy/Associate Superintendent	79	10.9	52.0
Principal	263	36.3	10.3
Assistant Principal	121	16.7	4.1
Other	146	20.1	23.9

2. Sex	Number	Percent
Male	503	69.4%
Female	222	30.6

3. Ethnicity	Number	Percent
White	636	88.2%
Black	28	3.9
Hispanic	39	5.5
Asian	9	1.2
Filipino	1	0.1
Native American	6	0.8
Other	2	0.3

4. Highest degree	Number	Percent
Ed.D	123	17.1%
Ph.D.	47	6.5
MA/MS	519	72.0
MBA/MPA	2	0.3
BA/BS	29	4.0
AA	1	0.1

5. Area of specialization of all respondents	Number	Percent
Educational Administration/ Supervision	378	53.2%
Curriculum and Instruction	49	6.9
Counseling / Student Services	48	6.8
Other Education	138	19.4
Social Sciences	25	3.5
Humanities	28	3.9
Mathematics and Science	11	1.5
Other	34	4.8

6. Is the ultimate career goal of the respondent to be superintendent?	Number	Percent
Yes	221	38.1
No	359	61.9

7. Is the prestige and symbolic value of the doctorate as important as the training?	Number	Percent
Yes	408	58.8%
No	286	41.2

8. Does the institution awarding the doctorate matter?	Number	Percent
Yes	510	72.2%
No	196	27.8

9. Does it matter whether the degree is a Ph.D. or Ed.D ?	Number	Percent
Yes	247	35.2%
No	455	64.8

10. Preferred degree for those expressing a preference	Number	Percent
Ph.D.	189	85.5%
Ed.D.	30	13.6

11. Could other forms of continuing education be as effective as a formal doctoral program?	Number	Percent
Yes	510	72.2%
No	196	27.8

12. Area of specialization of doctorate holders	Number	Percent
Educational Administration/ Supervision	99	58.9%
Curriculum and Instruction	24	14.3
Counseling Student Services	4	2.4
Other Education	19	11.3
Social Sciences	9	5.4
Humanities	1	.6
Mathematics and Science	1	.6
Other	11	6.5

13. Is the doctorate expected now for these positions?

	Number	Percent
District Superintendent		
Yes	427	59.6%
No	236	33.0
Don't Know	53	7.4
Assistant Superintendent		
Yes	224	32.4%
No	401	57.9
Don't Know	67	9.7
Secondary School Principal		
Yes	26	3.9%
No	601	90.2
Don't Know	39	5.9
Elementary School Principal		
Yes	7	1.0%
No	632	92.9
Don't Know	41	6.0

14. Will it be expected for these positions?

	Number	Percent
District Superintendent		
Yes	593	82.5%
No	64	8.9
Don't Know	62	8.6
Assistant Superintendent		
Yes	504	70.6%
No	137	19.2
Don't Know	73	10.2
Secondary School Principal		
Yes	163	23.0%
No	431	60.7
Don't Know	116	16.3
Elementary School Principal		
Yes	86	12.1%
No	500	70.6
Don't Know	122	17.2

15. Should it be expected for these positions?

	Number	Percent
District Superintendent		
Yes	476	66.3%
No	208	29.0
Don't Know	34	4.7
Assistant Superintendent		
Yes	371	52.0%
No	287	40.3
Don't Know	55	7.7
Secondary School Principal		
Yes	111	15.7%
No	534	75.6
Don't Know	61	8.6
Elementary School Principal		
Yes	83	11.8%
No	562	79.8
Don't Know	59	8.4

16. Can respondents without the doctorate advance without it?

	Number	Percent
Yes	340	71.8%
No	68	14.4
Don't Know	65	13.8

17. Could respondents with the doctorate advance without it?

	Number	Percent
Yes	101	63.1%
No	33	22.5
Don't Know	26	14.4

18. Enrollment plans of respondents without doctorates who are not currently enrolled

	Number	Percent
Enroll within five years	90	20.0%
Do not plan to enroll	233	28.5
Don't know	129	51.5

19. Institutions in which respondents without doctorates are currently enrolled

	Number
Berkeley	5
UCLA	6
UC Riverside	1
UC Santa Barbara	1
Claremont	2
La Verne	13
Pepperdine	4
University of the Pacific	2
USC	12
University of San Diego	1
United States International	1
USF	3
Nova University	1
BYU	1
Out of state	3

20. Area of specialization for those currently enrolled

	Number
Adult/Continuing Education	3
Curriculum and Instruction	2
Educational Administration/ Supervision	21
School/Educational Psychology	1
Institutional Management	9
Educatioanl Leadership	2
Other	5

21. Degree sought for those currently enrolled

	Number	Percent
Ph.D	16	28.6%
Ed.D	40	71.4

22. Difficulties of those currently enrolled in a doctoral program

	Number	% of Cases
Job/Family/Time	45	80.4
Program aspects	18	32.1
Cost	7	12.5
Distance	7	12.5
Other	1	1.8

23. Institution attended by those possessing a doctorate

	Number	Percent
Berkeley	7	4.2%
UCLA	3	1.8
UC Riverside	2	1.2
UC Santa Barbara	2	1.2
Claremont	7	4.2
La Verne	9	5.4
Pepperdine	4	2.4
Stanford	5	3.0
University of the Pacific	6	3.6
USC	58	34.7
United States International	10	6.0
USF	10	6.0
Nova University	3	1.8
BYU	6	3.6
CA non-accredited	4	2.4
Other Out-of State Universities	31	18.6

24. Most useful aspects of the doctoral program

	Number	% of Cases
Dissertation	13	8.1
Research methods	32	19.9
Specific courses	30	18.6
Professional contacts	44	27.3
Theoretical bases	12	7.5
Practical applications	25	15.5
Self-esteem/confidence	21	13.0
Intellectual development	29	18.0
Other	24	14.9

25. Difficulties in obtaining a doctorate as identified by those possessing a doctorate

	Number	% of Cases
Job/Family/Time	95	65.5
Program aspects	19	13.1
Cost	34	23.4
Distance	39	26.9
Other	9	6.2

26. Importance of doctorate in securing position

	Number	Percent
Essential	29	17.2%
Helpful	96	56.8
Not a Factor	30	17.8
Didn't Have It	14	8.3

27. Importance of doctorate in preparation for job

	Number	Percent
Essential	38	22.8%
Helpful	110	65.9
Somewhat Helpful	13	7.8
Not Helpful	6	3.6

28. Difficulties to be overcome by those planning to enroll in a doctoral program

	Number	% of Cases
Job/Family/Time	81	74.3
Program aspects	9	8.3
Cost	44	40.4
Distance	43	39.4
Other	2	1.8

within the next five years, and another 29 percent are uncertain about their plans.

Whether a school administrator is currently enrolled in a doctoral program, planning to enroll, uncertain about enrolling, or not planning to enroll at all, an overwhelming 72 percent feel that they can advance without obtaining the doctorate.

Cross-tabulations done by sex and ethnicity of the responding school administrators indicate the following differences:

- Women are newer to school administration. Of those administrators who have been in educational administration 20 or more years, fully 90 percent are men. Of those who entered educational administration within the last three years, 45 percent are women.
- Significantly fewer women than men aspire ultimately to be a county or district superintendent.
- While both men and women holding the doctorate chose the institution from which they received the degree for its reputation, 57 percent of the men did so compared to 38 percent of the women who also were interested in convenience of scheduling and a specific program that the institution offered (19 percent each).
- Fifty-nine percent of all female school administrators said that they had enrolled in a doctoral program for intellectual growth; 25 percent also indicated the satisfaction of having the doctorate as a primary reason. The reasons indicated by men, on the other hand, were job advancement and promotion (47 percent), followed by satisfaction (27 percent) and intellectual growth (24 percent).
- Forty-one percent of all women holding the doctorate noted specific courses as that aspect of their doctoral program that had proved most useful to them, whereas men's responses were evenly distributed over several response categories.
- Proportionately more women holding the doctorate (76 percent) than men with the doctorate (60 percent) felt that they could advance in their present employment without having obtained the doctorate.
- Women (44 percent) are more likely than men (31 percent) to think that it matters professionally whether the doctoral degree is a Ph.D. or an Ed.D. Men and women agree that the Ph.D. is preferred.
- Although both men and women with the doctorate indicate job, family, and time constraints most frequently as the major difficulty in obtaining their degrees, proportionately more women (20 percent) than men (11 percent) point to program aspects as a deterrent and proportionately more men (26 percent and 30 percent, respectively) than women (13 percent and 17 percent) single out costs and distance.
- For those school administrators currently enrolled in a doctoral program, 91 percent of the men indicate job, family, and time constraints as difficul-

ties, while 23 percent of them acknowledged both program aspects and distance. Proportionately fewer women (65 percent) list job, family, and time constraints and proportionately more (45 percent) stipulate various program aspects. Cost and distance appear to be minimal considerations for most women in the sample.

- Again, women currently enrolled in a doctoral program are there for reasons of intellectual growth, men for reasons of job advancement and promotion.
- Proportionately greater numbers of men have dropped out of doctoral programs for reasons of cost than women, while proportionately greater numbers of women have dropped out because of job, family, and time constraints; aspects of the program itself; and distance.

The following differences pertaining to ethnicity also appeared in the Commission's sample of school administrators:

- Minorities are making relatively small gains in school administration. Four percent of those who have been in administration 20 or more years are minorities. This number has increased to only 12 percent for those who have been administrators three or fewer years.
- Of those school administrators in the sample who are ethnic minorities (12 percent), 35 percent are elementary or secondary school principals, 23 percent are assistant principals, and 25 percent fall in the "other" category which includes teachers, counselors, etc. Twelve percent of the minority administrators are associate or assistant superintendents; only 5 percent are superintendents.
- Minorities have a higher representation as holders of the Ph.D. than of the Ed.D.
- Although a greater percentage of both minority (42 percent) and non-minority administrators (54 percent) have an academic specialization in educational administration and supervision than in other fields, there are a proportionately higher number of minorities in curriculum and instruction, counseling or student services, math and science, and other educational fields than non-minorities.
- Of all minority administrators, 58 percent are men.
- Seventy-five percent of all minority administrators holding the doctorate chose the institution they attended for reputation, compared to 51 percent of all non-minority administrators for whom convenience of schedule (16 percent), location (15 percent), and specific programs (13 percent) were also important.
- A lesser proportion of minorities (52 percent) than non-minorities (61 percent) think that the doctorate is generally expected of the superintendent in their district, whereas a greater proportion of minorities (79 percent) than non-minorities (65 percent) think the doctorate *should* be expected of superintendents in California.
- Minorities were evenly divided in their opinion about the prestige and symbolic value of the doctorate being as important to the school administrator as the training the program provides, whereas three-fifths of non-minority administrators agreed that prestige and symbolic value were as important as the training.
- In assessing the current job market for holders of the doctorate in education, minorities (44 percent) were more likely than non-minorities (29 percent) to see the supply of candidates exceeding the demand for them.
- Although job, family, and time constraints were the most frequent difficulty for both minority and non-minority administrators currently enrolled in a doctoral program, a proportionately higher number of non-minority administrators noted it, whereas a proportionately higher number of minority rather than non-minority administrators mentioned program aspects, cost, distance, and other factors. In the case of administrators who already hold the doctorate, no differences appear between the responses to this question of minority and non-minority administrators.
- For those administrators who are currently enrolled in a doctoral program or planning to enroll, a proportionately greater number of minority administrators than non-minority administrators are prompted by reasons of intellectual growth and the satisfaction of holding the degree, whereas a proportionately higher number of non-minority administrators enroll for reasons of job advancement and promotion.
- A proportionately higher percentage of minority administrators than non-minority administrators

dropped out of a doctoral program because of cost. This finding, though worth pursuing further, is inconclusive, because the total number of administrators in the respondent pool is so small.

Survey of Community College administrators

Methodology

Using names and addresses provided by the Chancellor's Office of the California Community Colleges, Commission staff sent a survey to 442 Community College superintendents, chancellors, and presidents; vice presidents and deans of instruction; vice presidents and deans of students; deans of vocational and occupational education; and other administrative personnel. The survey instrument most closely resembles the questionnaire sent to school administrators, but with minor changes or deletions made to reflect aspects of Community College administrators. Completed forms were received from 298 individuals for an overall response rate of 67 percent. The participation of superintendents, chancellors, and presidents in the survey was especially noteworthy: 109 of 126 persons holding these positions (87 percent) returned completed forms. Return rates for other positions were as follows: deans of instruction -- 49 percent of 117; deans of students -- 67 percent of 95; deans of vocational education -- 50 percent of 72; and other administrators -- 91 percent of 32. A pretest of the survey was run, using individuals employed in a number of capacities at a district office and at the systemwide Chancellor's Office.

Analysis

Among this group of administrators, 185 or 62 percent, hold doctoral degrees. The most common areas of specialization in doctoral programs were community college administration and higher education. Only one of every five doctorates was in educational administration, about the same number as those in all fields other than education.

A high percentage of those holding doctorates (37 percent) earned their degrees at institutions outside the State. Most degrees awarded in California came from the University of Southern California (37), followed by UCLA (21) and Berkeley (16). Fourteen administrators received their doctorates from Nova University.

Opinion was evenly divided on whether it matters from which institution one received the degree. A large majority, however, felt that for advancement in community college administration it was not important whether the degree was a Ph.D. or Ed.D. Two-thirds of those responding regarded the prestige and symbolic value of the doctorate as important for the community college administrator as the training provided by the program. Among aspects of the doctoral program regarded as most useful, the opportunity for professional contacts and interaction was listed most often, followed by training in research methods. The dissertation experience was listed least often.

Many of those with doctorates (44 percent) felt that the degree was essential in securing their present position. Even more (48 percent) however, felt that they could advance without the doctorate. Most regarded the doctoral program as helpful but not essential as preparation for their present position.

Fully 86 percent believe that the doctorate will eventually be required for all district chancellors or superintendents and all presidents, but as with most other positions, fewer believe that it should be than those who predict that it will be. For every position, far more administrators believe the degree will eventually be required than that it is expected today. For example, only 45 percent feel the doctorate is presently expected of deans of instruction compared to 68 percent who believe it will be required in the future. The 24 percent who see the degree expected of today's dean of students jump to 53 percent who believe it will be. And while only 7 percent think the doctorate is currently expected of deans of vocational education, 24 percent feel that it will be. This is the only position, we might note, for which more community college administrators think the degree should be required than anticipate that it will be.

At the same time, however, in assessing the current and future job market in community colleges, most administrators felt that both now and ten years from now the supply of qualified candidates exceeds and will exceed the number of available positions. While almost twice as many (19 percent compared to 10 percent) believe that there will be more openings than candidates in ten years than there are now, 46 percent feel that supply will exceed demand, as 49 percent feel that it does at present.

Among the 103 respondents without the doctorate, 17 percent are currently enrolled in a doctoral pro-

Results of Commission Survey of Community College Administrators

1. Position of respondents

	Number	Percent of Responses	Percent with Doctorate
Superintendent/ President	109	36.6%	77.1%
Vice President/ Dean of Students	64	21.5	51.7
Vice President/Dean of Instruction	57	19.1	61.4
Dean of Vocational Education	36	12.1	44.4
Other	29	9.7	48.3

2. Sex

	Number	Percent
Male	233	78.2%
Female	65	21.8

3. Ethnicity

	Number	Percent
White	250	83.9%
Black	22	7.4
Hispanic	15	5.0
Asian	5	1.7
Filipino	1	0.3
Pacific Islander	1	0.3
Native American	3	1.0

4. Highest degree

	Number	Percent
Ed.D	114	38.3%
Ph.D.	71	28.3
MA/MS	107	35.9
BA/BS	2	0.7
AA	1	0.3
Other	3	1.0

5. Area of doctoral specialization of the 185 respondents with doctorates

	Number	Percent
Community College Administration	43	23.2%
Higher Education	42	22.8
Educational Administration/ Supervision	38	20.5
Other Education	14	7.6
Counseling and Student Services	11	5.9
Social Sciences	10	5.4
Humanities	6	3.2
Mathematics and Science	5	2.7
Other	216	8.6

6. University awarding doctorate

	Number	Percent
Berkeley	16	8.6%
UCLA	21	11.3
University of Southern California	37	19.9
University of San Francisco	6	3.2
United States International	5	2.7
Claremont Graduate Center	5	2.7
Other California Universities	11	5.9
Nova University	14	7.5
Other Out-of State Universities	68	36.7

7. Importance of doctorate in securing position

	Number	Percent
Essential	80	44.4%
Helpful	70	38.8
Not a Factor	19	10.5
Didn't Have It	11	6.1

8. Importance of doctorate in preparation for job

	Number	Percent
Essential	53	28.8%
Helpful	108	58.6
Somewhat Helpful	16	8.6
Not Helpful	7	3.8

9. Could you advance without the doctorate?

	Number	Percent
Yes	84	47.7%
No	65	36.9
Uncertain	27	15.3

10. Is the prestige and symbolic value of the doctorate as important as its training?

	Number	Percent
Yes	179	66.0%
No	92	33.9

11. Does the institution awarding the doctorate matter?

	Number	Percent
Yes	133	49.4%
No	141	50.5

12. Does it matter if the degree is in education?

	Number	Percent
Yes	50	18.1%
No	225	81.8

13. If degree is in education, does it matter if it is a Ph.D. or Ed.D ?

	Number	Percent
Yes	44	15.6%
No	237	84.3

14. Preferred degree for those expressing a preference

	Number	Percent
Ph D	42	89.3%
Ed D	5	10.6

15. Is the doctorate expected now for these positions?

	Number	Percent
District Superintendent/Chancellor		
Yes	220	73.8%
No	45	15.1
Don't Know	12	4.0
Community College President		
Yes	205	68.8
No	60	20.1
Don't Know	17	5.7
Vice President / Dean of Instruction		
Yes	134	45.0
No	135	45.3
Don't Know	22	7.4
Vice President / Dean of Students		
Yes	72	24.2
No	189	63.4
Don't Know	28	9.4
Dean of Vocational/Occupational Education		
Yes	22	7.4
No	240	80.5
Don't Know	26	8.7

16. Will it be expected for these positions?

	Number	Percent
District Superintendent/Chancellor		
Yes	256	85.9%
No	15	5.0
Don't Know	23	7.7
Community College President		
Yes	256	85.9
No	16	5.4
Don't Know	24	8.1
Vice President / Dean of Instruction		
Yes	202	67.8
No	48	16.1
Don't Know	46	15.4
Vice President / Dean of Students		
Yes	158	53.0
No	85	28.5
Don't Know	54	18.1
Dean of Vocational/Occupational Education		
Yes	72	24.2
No	154	51.7
Don't Know	68	22.8

17. Should it be expected for these positions?

	Number	Percent
District Superintendent/Chancellor		
Yes	234	78.5%
No	43	14.4
Don't Know	18	6.0
Community College President		
Yes	228	76.5
No	46	15.4
Don't Know	22	7.4
Vice President / Dean of Instruction		
Yes	179	60.1
No	86	28.9
Don't Know	30	10.1
Vice President / Dean of Students		
Yes	148	49.7
No	114	38.3
Don't Know	33	11.1

17. (*continued*)

Dean of Vocational/Occupational Education		
Yes	81	27.2
No	170	57.0
Don't Know	39	13.1

18. Assessment of current job market

	Number	Percent
Supply exceeds demaand	146	49.0%
Supply equals demand	94	31.5
Demand exceeds supply	29	9.7
No response	29	9.7

20. Assessment of future job market

	Number	Percent
Supply will exceed demand	138	46.3%
Supply will equal demand	80	26.8
Demand will exceed supply	56	18.8
No response	24	8.1

21. Most useful aspects of the doctoral program

	Number	% of Cases
Dissertation	14	7.7%
Research methods	43	23.8
Specific courses	28	15.5
Professional contacts	53	29.3
Theoretical bases	34	18.8
Prtactical applications	24	13.3
Self-esteem/confidence	25	13.8
Intellectual development	36	19.9
Other	29	16.0

22. Current doctoral enrollment of respondents without doctorates

	Number	Percent
Currently enrolled	19	16.8%
Not enrolled	82	72.5
No response	19	10.6

23. Institutions in which these doctoral candidates are enrolled

	Number
UCLA	3
University of Southern California	6
Clarement Graduate Center	3
University of LaVerne	1
Pepperdine University	1
University of the Pacific	1
Nova University	2
Other Out-of State Universities	1

24. Enrollment plans of respondents without doctorates

	Number
Plan to enroll within five years	4
Do not plan to enroll	17
Don't know	63

25. Can respondents without the doctorate advance without it?

	Number	Percent
Yes	60	53.1%
No	22	23.4
Don't know	22	23.4

26. Difficulties in pursuing the doctorate

	Respondents with doctorate		Respondents enrolled in program		Respondents planning to enroll	
	Number	% of Cases	Number	% of Cases	Number	% of Cases
Time / Family / Job	111	70.3%	14	87.5%	2	50.0%
Program aspects	29	18.4	2	12.5	0	--
Costs	44	27.8	2	12.5	1	25.0
Distance	51	32.3	2	12.5	2	50.0
Other	5	3.2	1	6.3	0	--

gram, 3 percent are planning to enroll, 15 percent are not planning to enroll, and the rest are uncertain. More than half of the current administrators without the doctorate, however, believe they can advance professionally without acquiring the degree.

Summary of comments

A majority of those who completed survey forms took the time to write comments and observations on various aspects of the doctorate as is relates to community college administration. As might be expected, these comments reflect a diversity of opinion on the value and importance of the degree to the administrator, on why it should or should not be required, and on the most useful kinds of degree programs. Despite the range of views, some observations were repeated frequently enough to constitute a general consensus of opinion. These views might be summarized as follows:

The doctorate is important for the community college administrator not necessarily for the specific training it provides, although it is of course to be expected that the program will contribute to the professional growth of the individual; the degree is important because of what it indicates about the person possessing it -- "a level of academic, personal, and professional discipline necessary for leadership." Furthermore, "educational institutions should be led by education professionals" and the doctorate "represents the highest level of achievement in education." The degree thus has a legitimate symbolic value important in relations with the community, with other colleges and universities, and with most faculty. Properly or not, "to be taken seriously as a part of the academic community, our credentials must parallel those of other college administrators," "doctorates on the staff indicate the professionalism of the institution," and "faculty feel a greater affinity for a leader who has shared the rigors of a . . . graduate research career."

The quality of the graduate school awarding the degree is important because "tainted degrees" from "paper mills" or other institutions with a poor reputation "may be an actual hindrance." Increasingly, faculty and the general community "are knowledgeable and sensitive to the reputation of universities" offering "easy degrees." Yet since many administrators are not eligible for sabbatical leaves, "non-traditional" programs offered off-campus would be highly desirable if their quality could be assured.

A major problem is that most available doctoral programs in education are "unrelated to the community college situation," or they consist of "coursework hurdles, resulting in no change in the person," orthey "have one serious flaw -- they lack a teaching discipline." A doctoral program "specifically designed" would provide "essential training for the demands of the administrator." It should focus on "leadership and humanistic management" with a "good philosophical basis, and be realistic and practical, not just conceptual in nature."

One district superintendent with a doctorate from a university in another state wrote that he was "amazed at the lack of university leadership within California in the preparation of tomorrow's community college leaders." Several others noted the lack of suitable programs in public universities in northern California.

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CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature.

Members of the Commission

The Commission consists of 15 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. The other six represent the major segments of postsecondary education in California.

As of March 1987, the Commissioners representing the general public are:

Seth P. Brunner, Sacramento
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Seymour M. Farber, M.D., San Francisco
Cruz Reynoso, Los Angeles
Lowell J. Paige, El Macero
Roger C. Pettitt, Los Angeles
Sharon N. Skog, Mountain View, *Vice Chairperson*
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Stephen P. Teale, M.D., Mokelumne Hill

Representatives of the segments are:

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Claudia H. Hampton, Los Angeles; representing the Trustees of the California State University

Arthur H. Margosian, Fresno; representing the Board of Governors of the California Community Colleges

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Harry Wugalter, Thousand Oaks; representing the Council for Private Postsecondary Educational Institutions

Angie Papadakis, Palos Verdes; representing the California State Board of Education

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including Community Colleges, four-year colleges, universities, and professional and occupational schools.

As an advisory planning and coordinating body, the Commission does not administer or govern any institutions, nor does it approve, authorize, or accredit any of them. Instead, it cooperates with other state agencies and non-governmental groups that perform these functions, while operating as an independent board with its own staff and its own specific duties of evaluation, coordination, and planning.

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, the Commission's meetings are open to the public. Requests to address the Commission may be made by writing the Commission in advance or by submitting a request prior to the start of a meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its executive director, William H. Pickens, who is appointed by the Commission.

The Commission issues some 30 to 40 reports each year on major issues confronting California postsecondary education. Recent reports are listed on the back cover.

Further information about the Commission, its meetings, its staff, and its publications may be obtained from the Commission offices at 1020 Twelfth Street, Third Floor, Sacramento, CA 98514-3985; telephone (916) 445-7933.

THE DOCTORATE IN EDUCATION: ISSUES OF SUPPLY AND DEMAND IN CALIFORNIA

California Postsecondary Education Commission Report 87-11

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Recent reports of the Commission include:

87-2 Women and Minorities in California Public Postsecondary Education: Their Employment, Classification, and Compensation, 1975-1985. The Fourth in the Commission's Series of Biennial Reports on Equal Employment Opportunities in California's Public Colleges and Universities (February 1987)

87-3 Issues Related to Funding of Research at the University of California: A Report to the Legislature in Response to Supplemental Language in the 1985 Budget Act (February 1987)

87-4 The California State University's South Orange County Satellite Center: A Report to the Governor and Legislature in Response to a Request from the California State University for Funds to Operate an Off-Campus Center in Irvine (February 1987)

87-5 Proposed Construction of San Diego State University's North County Center: A Report to the Governor and Legislature in Response to a Request for Capital Funds from the California State University to Build a Permanent Off-Campus Center of San Diego State University in San Marcos (February 1987)

87-6 Interim Evaluation of the California Student Opportunity and Access Program (Cal-SOAP): A Report with Recommendations to the California Student Aid Commission (February 1987)

87-7 Conversations About Financial Aid: Statements and Discussion at a Commission Symposium on Major Issues and Trends in Postsecondary Student Aid (February 1987)

87-8 California Postsecondary Education Commission News, Number 2 [The second issue of the Commission's periodic newsletter] (February 1987)

87-9 Expanding Educational Equity in California's Schools and Colleges: A Review of Existing and Proposed Programs, 1986-87. A Report to the California Postsecondary Education Commission by Juan C. Gonzalez and Sylvia Hurtado of the Higher Education Research Institute, UCLA, January 20, 1987 (February 1987)

87-10 Overview of the 1987-88 Governor's Budget for Postsecondary Education in California, Presented to the Senate Budget and Fiscal Review Subcommittee #1 by William H. Pickens, Executive Director, California Postsecondary Education Commission (March 1987)

87-12 Student Public Service and the "Human Corps": A Report to the Legislature in Response to Assembly Concurrent Resolution 158 (Chapter 165 of the Statutes of 1986) (March 1987)

87-13 Standardized Tests Used for Higher Education Admission and Placement in California During 1986: The Second in a Series of Annual Reports Published in Accordance with Senate Bill 1758 (Chapter 1505, Statutes of 1984) (March 1987)

87-14 Time Required to Earn the Bachelor's Degree: A Commission Review of Studies by the California State University and the University of California in Response to Senate Bill 2066 (1986) (March 1987)

87-15 Comments on the Report of the California State University Regarding the Potential Effects of Its 1988 Course Requirements: A Report to the Legislature in Response to Assembly Concurrent Resolution 158 (Chapter 165 of the Statutes of 1986) (March 1987)

87-16 Changes in California State Oversight of Private Postsecondary Education Institutions: A Staff Report to the California Postsecondary Education Commission (March 1987)

87-17 Faculty Salaries in California's Public Universities, 1987-88: The Commission's 1966 Report to the Legislature and Governor in Response to Senate Concurrent Resolution No. 51 (1965) (March 1987)

87-18 Funding Excellence in California Higher Education: A Report in Response to Assembly Concurrent Resolution 141 (1986) (March 1987)

87-19 The Class of '83 One Year Later: A Report on Follow-Up Surveys from the Commission's 1983 High School Eligibility Study (3/87)